

Item No. 12d

TOWN OF LAUDERDALE-BY-THE-SEA

AGENDA ITEM REQUEST FORM

Development Services

Department Submitting Request

Dept Head's Signature

| <u>Commission Meeting Dates</u> | <u>Last date to turn in to Town Clerk's Office</u> | <u>Commission Meeting Dates</u> | <u>Last date to turn in to Town Clerk's Office</u> | <u>Commission Meeting Dates</u> | <u>Last date to turn in to Town Clerk's Office</u> |
|---------------------------------------|--|---|--|---|--|
| <input type="checkbox"/> Nov 10, 2009 | Oct. 30 (5:00 p.m.) | <input type="checkbox"/> Jan 26, 2010 | Jan 15 (5:00 p.m.) | <input type="checkbox"/> March 23, 2010 | Mar 12 (5:00 p.m.) |
| <input type="checkbox"/> Dec 1, 2009 | Nov 20 (5:00 p.m.) | <input type="checkbox"/> Feb 9, 2010 | Jan 29 (5:00 p.m.) | <input type="checkbox"/> April 13, 2010 | April 2 (5:00p.m.) |
| <input type="checkbox"/> Dec 8, 2009 | Nov 25 (5:00 p.m.) | <input type="checkbox"/> Feb 23, 2010 | Feb 12 (5:00 p.m.) | <input type="checkbox"/> April 27, 2010 | April 16 (5:00p.m.) |
| <input type="checkbox"/> Jan 12, 2010 | Dec 31 (5:00 p.m.) | <input checked="" type="checkbox"/> Mar 4, 2010 | Feb 19 (5:00p.m.) | <input type="checkbox"/> May 11, 2010 | April 30 (5:00p.m.) |

NATURE OF AGENDA ITEM

- | | | |
|--|---|--|
| <input type="checkbox"/> Presentation | <input type="checkbox"/> Resolution | <input checked="" type="checkbox"/> New Business |
| <input type="checkbox"/> Report | <input type="checkbox"/> Ordinance | <input type="checkbox"/> Manager's Report |
| <input checked="" type="checkbox"/> Consent Agenda | <input type="checkbox"/> Public Hearing | <input type="checkbox"/> Attorney's Report |
| <input type="checkbox"/> Bids | <input type="checkbox"/> Old Business | <input type="checkbox"/> Other |

EXPLANATION: Commission to approve a Special Exception for the placement of rooftop antennas (1900 S Ocean Blvd) within the RM-25 zoning district per Town Ordinance 30-325 (d) (6). See attached back-up.

STAFF RECOMMENDATION: N/A**BOARD/COMMITTEE RECOMMENDATION:** N/A**FISCAL IMPACT AND APPROPRIATION OF FUNDS:** N/A

- | | |
|---|--|
| <input type="checkbox"/> Amount \$ _____ | <input type="checkbox"/> Acct # _____ |
| <input type="checkbox"/> Transfer of funds required | <input type="checkbox"/> From Acct # _____ |
| <input type="checkbox"/> Bid | <input type="checkbox"/> Grant <input type="checkbox"/> Amount represents matching funds |

Town Attorney review required

☒ Yes ☐ NoTown Manager's Initials: GL

INTEROFFICE MEMORANDUM

TO: JOHN OLINZOCK, ASSISTANT TOWN MANAGER
FROM: JEFF BOWMAN, DEVELOPMENT SERVICES DIRECTOR
SUBJECT: CLEAR WIRELESS LLC. ANTENNAS AT OCEAN PLACE
DATE: 2/18/2010

I have reviewed the application submitted by Clearwire on February 08, 2010 for the installation of antennas. The proposed location of these antennas is at Ocean Place Condominium (1900 S Ocean Blvd.). I have provided comments below in red addressing the seven (7) items within 30-325 that must be met. Additionally, the applicant must obtain approval from the commission as set forth in section (6) of 30-325 for a Special Exception. This item is expected to be placed on the March 23, 2010 Commission meeting for the Special Exception approval.

Sec. 30-325. Telecommunication towers and antennas.

Stealth facility: Any telecommunications facility which is designed to blend into the surrounding environment. Examples of stealth facilities include architecturally screened roof-mounted antennas, antennas integrated into architectural elements, and telecommunication towers designed to look like light poles, power poles or trees. (The proposed antennas are non-stealth antennas)

(d) *Antennas not located on telecommunications towers.*

(1) Antennas shall be permitted as follows:

a. Stealth rooftop or building-mounted antennas may be permitted as an accessory use in the following zoning districts:

1. RM-50.

b. Non-stealth rooftop or building-mounted antennas shall only be conditionally permitted as an accessory use in the following zoning districts subject to the procedure and requirements provided elsewhere in this chapter:

1. (B-1) Business.

2. (B-2) Business.

3. (CF) Community facility.

(2) Minimum standards. Building or rooftop antennas shall be subject to the following minimum standards:

(b) Building rooftop non-stealth antennas shall be subject to the following minimum standards:

1. Antennas shall only be permitted on buildings which are at least 50 feet tall. Antennas may be placed on buildings less than 50 feet tall in the CF district if public safety needs warrant the antenna;

(Building rooftop is 150 Ft high, penthouse rooftop is 170ft high)

2. Antennas may not extend more than 20 feet above highest point of a roof. Stealth antennas attached to but not above rooftop structures shall be exempt from this provision. Antennas may exceed 20 feet above the roof in the CF district if public safety needs warrant additional height;

(Antennas and equipment do not exceed the height of the penthouse rooftop)

3. Antennas, and related equipment buildings, shall be located or screened to minimize the visual impact of the antenna upon adjacent properties and shall be of a material or color which matches the exterior of the building or structure upon which it is situated;

(The color of the proposed antennas will match the building colors as submitted in 8 ½ X 11 color rendering)

4. No commercial advertising shall be allowed on an antenna;

(No advertising is proposed)

5. No signals, lights, or illumination shall be permitted on an antenna, unless required by the Federal Communications Commission or the Federal Aviation Administration;

(No signals, lights, or illumination is proposed)

6. Any related unmanned equipment building shall not contain more than 750 square feet of gross floor area or be more than 12 feet in height; and

(No equipment building is proposed, equipment will be affixed to the penthouse wall on the ocean side)

7. If the equipment building is located on the roof of the building, the area of the equipment building shall not occupy more than 25 percent of the roof area.

(No equipment building is proposed, equipment will be affixed to the penthouse wall on the ocean side)

(3) Antenna types. To minimize adverse visual impacts, stealth antenna types shall be preferred. If a non-stealth antenna is proposed, the application shall be required to demonstrate, in a technical manner acceptable to the Town staff, why the stealth antenna cannot be used for the particular application.

This does not preclude a combination of the various types of antennas.

(6) Exceptions. The location of a new antenna in any zoning district other than those districts specified in this section shall be prohibited unless approved as a special exception.



1180 SW 36th Ave.
Pompano Beach, FL 33069

PHONE:
954 623 6145

FAX:
954 623 6141

ONLINE:
www.clear.com

November 5, 2009

RE: Clearwire FCC Compliance and Interference

To Whom It May Concern:

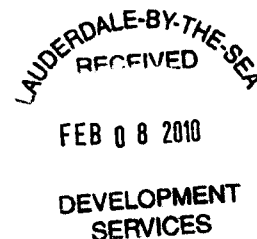
Clearwire provides wireless broadband services that use a network of fixed base stations. Clearwire operates between 2496 MHz and 2690 MHz spectrum using 10 MHz channels.

Clearwire will comply with all FAA and FCC regulations and applicable standards from all other federal, state, and local laws and regulations. As the applicant for this project, Clearwire will ensure that such installation, repair, operation, upgrading, maintenance and removal of antennas by the wireless communication provider shall be lawful and in compliance with all applicable laws, orders, ordinances and regulations of federal, state and local laws and regulations.

Antenna usage at our wireless installations will not interfere with other adjacent or neighboring transmission or reception of communications signals including emergency services.

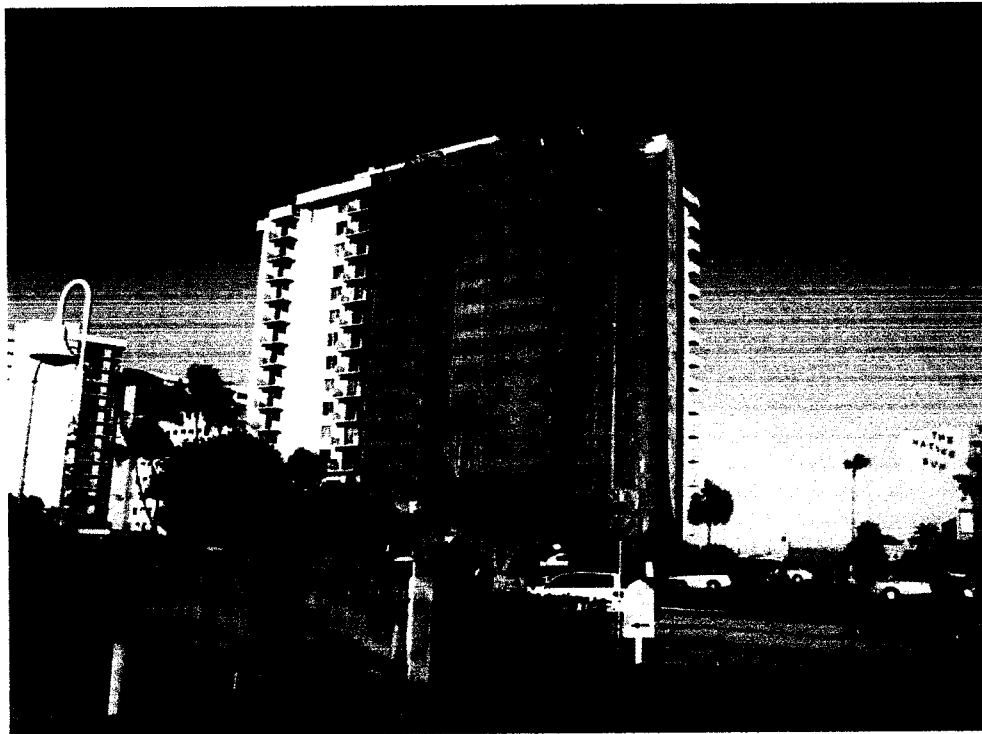
Sincerely,

Reinaldo J. Cordero
Lead Radio Frequency Engineer
Clearwire
South Florida

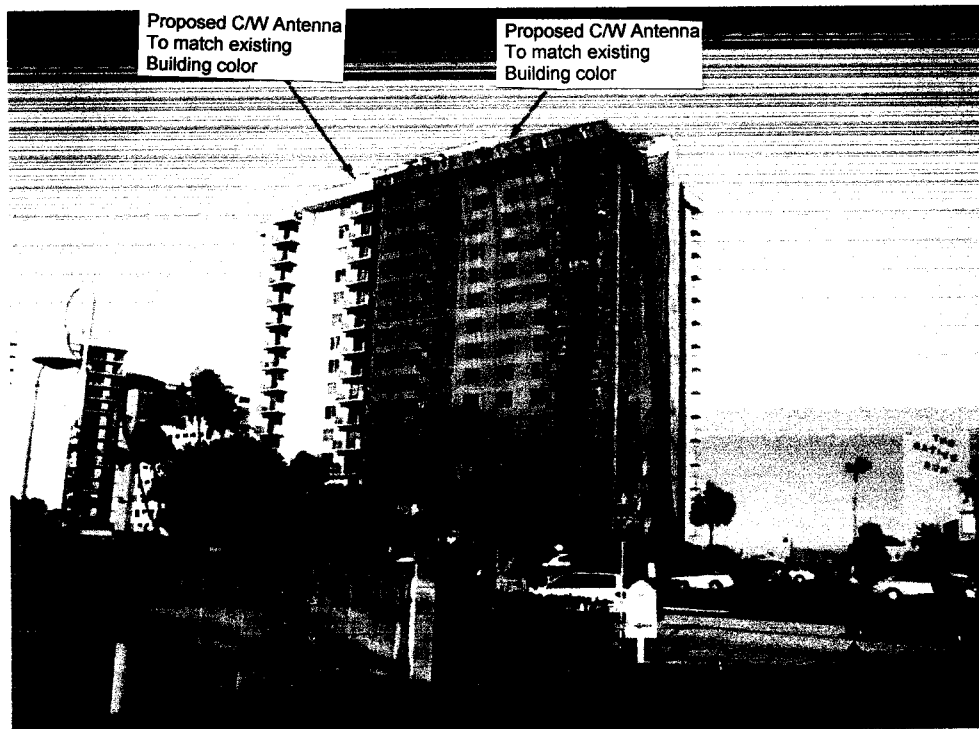


Clearwire Antenna Installation

FL-MIA 5045-A Ocean Place Condo, Lauderdale by-the-Sea, Florida



View of West Elevation taken before installing antennas.



View of West Elevation taken after installing antennas.



Kimley-Horn
and Associates, Inc.

OCEAN PLACE

AT LAUDERDALE BY THE SEA CONDOMINIUM ASSOCIATION, INC.

January 19, 2010

Mr. Murray Strauss
Clear Wireless LLC
1180 SW 36th Avenue, Suite 207
Pompano Beach, FL 33069

Ms. Betty Tufford and Chad Caudill
Powder River Development Services, LLC
1200 NW 17th Ave. Ste 21
Delray Beach, FL 33445



Re: FL-MIA5045-Site Plan Application - Designation of agent

Dear Mr. Strauss, Ms. Betty Tufford, and Mr. Chad Caudill:

Please allow this letter to serve as your authorization to act as Ocean Place at Lauderdale by the Sea Condominium Association, Inc., agent in procuring all the necessary permits with the City of Lauderdale by the Sea, FL., as it relates to the above referenced application.

Sincerely,

Catherine Fawcett – LCAM –
Assistant Secretary for the Association

STATE OF FLORIDA

COUNTY OF BROWARD

The above person Catherine Fawcett produced as identification: _____
or is personally known to me ✓

This 19th day of January, 2010.

Notary Public: Mary F. Grebla

My commission expires: July 18, 2011

NOTARY PUBLIC STATE OF FLORIDA
Mary F. Grebla
Commission # DD696844
Expires: JULY 18, 2011
BONDED THRU ATLANTIC BONDING CO., INC.

(Seal)



TOWN OF LAUDERDALE-BY-THE-SEA, FLORIDA SITE PLAN APPLICATION

To be completed by Town

Date Application submitted: 2.08.2010

Date Application found complete: 2-18-2010

Pre-Application meeting date: N/A

Town Commission meeting date: 3-23-2010

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APPLICATION TYPE AND FEES

| | | | Consultant Fee |
|--------------------------|-----------|-----------------------|----------------|
| Site Plan: | \$ 500.00 | Advertising: \$400.00 | \$2600.00 |
| Rezoning: | \$ 500.00 | Advertising: \$400.00 | \$2600.00 |
| Land Use Plan Amendment: | \$ 500.00 | Advertising: \$400.00 | \$2600.00 |
| Preliminary Plat: | \$ 500.00 | Advertising: \$400.00 | \$2600.00 |
| Final Plat: | \$ 500.00 | Advertising: \$400.00 | \$2600.00 |

TOTAL DUE: \$3500.00

The Town Code provides for cost recovery of outside consultants, legal advertising costs, direct mail notice costs, etc. and depending on the scale of the project, additional fees may be incurred.

PROJECT INFORMATION

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Project Name: Ocean Place Condo /Clear Wireless(FL-MIA5045)
Address: 1900 South Ocean Blvd
Legal Description: Lot _____ Block _____ Subdivision _____
Property Owner's Name: Ocean Place at Lauderdale By the Sea Condominium
Property Owner's Address: 1900 South Ocean Blvd
Phone Number: 954-943-5070 Fax: 954-943-5071
Agent/Applicant's Name: Murray Strauss (Clear Wireless LLC)
Address: 1180 SW 36th Ave Suite 207, Pompano Beach, FL 33069
Phone Number: 561-272-1103 Fax: 561-272-1373

Petty 561-633-5250

DESCRIPTION OF PROJECT:

Installation of 6 antennas on existing rooftop structure walls
and one electrical cabinet with conduit and new 100 amp
electrical service with new meter and disconnect mounted on
existing rooftop and structure wall.

Applicant/Agent Signature: _____

MURRAY STRAUSS

THE ABOVE PERSON PRODUCED AS IDENTIFICATION:

OR IS PERSONALLY KNOWN TO ME ☒

THIS 19th DAY OF January, 20 10

NOTARY PUBLIC: _____, COUNTY OF BROWARD

*If Agent/Applicant is not Owner, a notarized letter is required from Owner.



Notary Public State of Florida
Lourdes M Delfin
My Commission DD67483
Expires 07/13/2011

FEB 08 2010

PROJECT CHARACTERISTICSDEVELOPMENT
SERVICES**For Proposed Residential Projects:
Unit Type**

| | | | |
|---------------|-----------------------|-----------------|---------------|
| Single Family | Number of Units _____ | Plot Size _____ | Density _____ |
| Duplex | Number of Units _____ | Plot Size _____ | Density _____ |
| Townhouses | Number of Units _____ | Plot Size _____ | Density _____ |
| Condominiums | Number of Units _____ | Plot Size _____ | Density _____ |
| Motel Units | Number of Units _____ | Plot Size _____ | Density _____ |
| Hotel Units | Number of Units _____ | Plot Size _____ | Density _____ |

For Proposed Non-Residential Projects:**Primary Land Use Type**

| | | | | |
|-------------------------|-------|--------------------------------|-----------------|--------------------|
| Commercial | _____ | Gross Floor Area _____ | Plot Size _____ | # of Stories _____ |
| Office | _____ | Gross Floor Area _____ | Plot Size _____ | # of Stories _____ |
| Restaurant | _____ | Gross Floor Area _____ | Plot Size _____ | # of Stories _____ |
| Medical | _____ | Gross Floor Area _____ | Plot Size _____ | # of Stories _____ |
| Other or Accessory Uses | _____ | | Plot Size _____ | # of Stories _____ |
| | | Gross Floor Area <u>49,934</u> | Plot Size _____ | # of Stories _____ |

Existing Site CharacteristicsExisting Zoning RM-25 Land Use Plan Designation _____Existing Land Use Residential Condominium

Presently Vacant _____

| | | | |
|--------------------|-------|--------------------------|------------------------|
| In Residential use | _____ | Last Date Occupied _____ | To Be Demolished _____ |
| Number of Units | _____ | Plot Size _____ | Density _____ |

| | | | |
|------------------------|-------|--------------------------|------------------------|
| In Non-Residential use | _____ | Last Date Occupied _____ | To Be Demolished _____ |
| Gross Floor Area | _____ | Plot Size _____ | # of Stories _____ |

Town Code

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Lauderdale by the sea

Sec. 30-325. **Telecommunication** towers and antennas.

(a) *Intent.* The regulations and requirements of this section are intended to:

- (1) Promote the health, safety and general welfare of the citizens by regulating the siting of telecommunications towers;
- (2) Provide for the appropriate location and development of telecommunication towers and antennas within the town;
- (3) Minimize adverse visual effects of telecommunication towers and antennas through careful design, siting, landscape screening and innovative camouflaging techniques;
- (4) Avoid potential damage to adjacent properties from tower failure through engineering and careful siting of tower structures;
- (5) Protect residential areas and land uses from potential adverse impacts of telecommunication towers and antennas by maximizing use of any new or existing telecommunication towers through shared use, i.e., co-location, to reduce the number of towers needed.

(b) *Definitions.*

Accessory use: A use incidental to, subordinate to, and subservient to the main use of the property.

Antenna: A transmitting and/or receiving device used for personal wireless services that radiates or captures electromagnetic waves, including directional antennas, such as panel and microwave dish antennas, and omni-directional antennas, such as whips, excluding radar antennas, amateur radio antennas and satellite earth stations.

Guyed tower: A telecommunication tower that is supported, in whole or in part, by guy wires and ground anchors.

Microwave, Dish antenna: A dish-like antenna used to link personal wireless service sites together by wireless transmission of voice or data.

Monopole tower: A telecommunication tower consisting of a single pole or spire self-supported by a permanent foundation, constructed without guy wires and ground anchors.

Panel antenna: An array of antennas designed to concentrate a radio signal in a particular area.

Self-support/lattice tower: A telecommunication tower that is constructed without guy wires and ground anchors.

Stealth facility: Any telecommunications facility which is designed to blend into the surrounding environment. Examples of stealth facilities include architecturally screened roof-mounted antennas, antennas integrated into architectural elements, and telecommunication towers designed to look like light poles, power poles or trees.

Telecommunication tower: A guyed, monopole or self-support/lattice tower, constructed as a free-standing structure, containing one or more antennas used in the provision of personal wireless services.

Whip antenna: A cylindrical antenna that transmits signals in 360 degrees.

(c) *Telecommunications towers.*

(1) Freestanding telecommunication towers may be permitted as an accessory use in the following zoning districts:

- a. (CF) Community facilities greater than 2 acres. On property owned by the Town, the Town shall authorize the application and use of Town property after the applicant executes a lease agreement acceptable to the Town. The Town shall have no obligation whatsoever to execute such lease even if the applicant can meet the criteria set forth herein.

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(2) Towers as part of existing utility poles may be permitted as an accessory use in the following zoning districts: B-1, B-1a, B-2, and RM-50.

a. Towers shall be constructed as part of the existing utility poles or as replacements for the existing utility poles. No freestanding towers constructed exclusively for personal wireless services shall be permitted.

(3) Freestanding telecommunication towers shall be permitted, as a conditional use, in the B-2 zoning district provided the towers are an accessory use and subject to the procedure and requirements of the Code of Ordinances, the zoning code and other applicable rules and regulations. This provision does not preclude the use of vacant property in the B-2 zoning district; however, a monopole type stealth facility must be utilized.

(4) Exceptions. The location of a new telecommunications tower in any zoning district other than those districts specified in this section must be approved as a special exception.

(5) Minimum standards. Except where a special exception is granted, every telecommunications tower must meet the following minimum standards:

a. Prior to the issuance of a building permit by the Building Division, Department of Community Services, a site development plan shall be presented for approval to the Planning Division, Department of Community Services. Each application for a proposed telecommunication tower shall include all requirements for site development plan approval as required by the Town's Code of Ordinances, the zoning code and other applicable rules and regulations. The Director of Community Services may waive all or some of these provisions for stealth towers which are designed to emulate existing structures already on the site, including but not limited to light standards or power poles.

b. A statement shall be submitted, prepared by a professional registered engineer licensed to practice in the State of Florida, which through rational engineering analysis certifies the tower's compliance with applicable standards as set forth in the South Florida Building Code, latest Broward County Edition, and any associated regulations including Electronic Industry Association/Telecommunications Industry Association standard for wind load; and describes the tower's capacity, including an example of the number and type of antennas it can accommodate. No tower shall be permitted to exceed its loading capacity. For all towers attached to existing structures, the statement shall include certification that the structure can support the load superimposed from the tower. All towers shall have the capacity to permit multiple users; at a minimum, monopole towers shall be able to accommodate two users and at a minimum, self-support/lattice or guyed towers shall be able to accommodate three users.

c. Height/setbacks and related location requirements.

1. The height of a telecommunications tower shall not exceed 150 feet. Tower height shall be measured from the crown of the road of the nearest public street.

2. Telecommunication towers shall conform with the setbacks established for the underlying zoning district.

3. Monopole, lattice or guyed telecommunication towers shall not be permitted within 250 feet of any residential district.

4. Monopole, lattice or guyed telecommunication towers shall not be located within 750 feet of any existing monopole, lattice or guyed telecommunication tower.

5. All buildings and other structures to be located on the same property as a telecommunication tower shall conform with the setbacks established for the underlying zoning district.

d. Aircraft hazard. Prior to the issuance of a building permit by the Building Division, Department of Community Services, the applicant shall provide evidence that the

telecommunication towers or antennas are in compliance with Federal Aviation Administration (FAA) regulations. Where an antenna will not exceed the highest point of the existing structure upon which it is to be mounted, such evidence shall not be required.

e. Approval required from other governmental agencies. Each application for a telecommunication tower may be required to include written approval or a statement of no objection from other federal or state agencies that may regulate telecommunication tower siting, design, and construction.

f. FCC emissions standards. All proposed telecommunication towers shall comply with current radio frequency emissions standards of the Federal Communications Commission.

g. Buffering.

1. An eight-foot fence or wall as measured from the finished grade of the site, shall be required around the base of any lattice tower and may be permitted around any accessory buildings or structures.

2. Landscaping, consistent with the requirements of the Land Development Code, shall be installed around the entire perimeter of any fence or wall. Additional landscaping may be required around the perimeter of a fence or wall and around any or all anchors or supports if deemed necessary to buffer adjacent properties. The Town may require landscaping in excess of the requirements of the Town Code in order to enhance compatibility with adjacent residential and nonresidential land uses. Landscaping shall be installed on the outside of the perimeter fence or wall.

3. Landscaping consistent with perimeter and on-site requirements of the Land Development Code shall be installed around any accessory buildings or structures.

h. High voltage and "No Trespassing" warning signs.

1. If high voltage is necessary for the operation of the telecommunications tower or any accessory structures, "HIGH VOLTAGE--DANGER" warnings signs shall be permanently attached to the fence or wall and shall be spaced no more than 40 feet apart.

2. "NO TRESPASSING" warning signs shall be permanently attached to the fence or wall and shall be spaced no more than 40 feet apart.

3. The letters for the "HIGH VOLTAGE--DANGER" and "NO TRESPASSING" warning signs shall be at least six inches in height. The two warning signs may be combined into one sign. The warning signs shall be installed at least five feet above the finished grade of the fence.

4. The warning signs may be attached to freestanding poles if the content of the signs may be obstructed by landscaping.

i. Equipment storage. Mobile or immobile equipment not used in direct support of a tower facility shall not be stored or parked on the site of the telecommunication tower, unless repairs to the tower are being made.

j. Removal of abandoned or unused facilities. All abandoned or unused telecommunication tower facilities shall be removed by the tower owner/operator within 90 days of the cessation of use. A tower shall be considered abandoned if use has been discontinued for 180 consecutive days. Telecommunication towers being utilized for other purposes, including but not limited to light standards and power poles, may be exempt from this provision.

k. Signs and advertising. The use of any portion of a tower for signs or advertising purposes, including company name, banners, streamers, etc., shall be strictly prohibited.

l. Accessory buildings or structures. All accessory buildings or structures shall meet all building design standards as listed in the Town's Code of Ordinances, the Town's zoning code, and in accordance with the provisions of the South Florida Building Code, latest Broward County

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Edition. All accessory buildings or structures shall require a building permit issued by the Building Division, Department of Community Services.

m. Colors. Except where superseded by the requirements of other County, State, or Federal regulatory agencies possessing jurisdiction over telecommunications towers, telecommunications towers shall be painted or constructed in neutral colors, designed to blend into the surrounding environment such as noncontrasting gray.

n. Non-interference. Each application to allow construction of a telecommunication tower shall include a certified statement that the construction and placement of the tower, will not interfere with public safety communications.

(6) Inspections.

a. Telecommunication tower owners shall submit a report to the Town Building Division, Department of Community Services, certifying structural and electrical integrity on the following schedule:

1. Monopole towers--At least once every five years;
2. Self-support/lattice towers--At least once every two years; and
3. Guyed towers--At least once every two years.

b. Inspections shall be conducted by an engineer licensed to practice in the State of Florida. The results of such inspections shall be provided to the Building Division, Department of Community Services. Based upon the results of an inspection, the Building Official may require repair or removal of a telecommunication tower.

c. The Building Division, Department of Community Services, may conduct periodic inspections of telecommunication towers to ensure structural and electrical integrity. The owner of the telecommunications tower may be required by Town to have more frequent inspections should there be reason to believe that the structural and electrical integrity of the tower is jeopardized.

(7) Construction of any tower type other than stealth and monopole, including but not limited to lattice and guyed towers, shall require a special exception.

(8) Telecommunications towers are prohibited when a proposed or existing principal use includes the storage, distribution, or sale of volatile, flammable, explosive, or hazardous wastes such as LP gas, propane, gasoline, natural gas, and corrosive or dangerous chemicals.

(9) Existing towers.

a. Notwithstanding the above provisions of this section, telecommunications antennas may be placed on existing towers with sufficient loading capacity after approval by the Director of Community Services. The capacity shall be certified by an engineer licensed to practice in the State of Florida.

b. Notwithstanding the above provisions of this section, towers in existence as of October 1, 1996, may be replaced with a tower of equal or less visual impact after approval by the Town Manager or his designee. However, if the proposed new tower would not be consistent with the minimum standards under this section, replacement must be approved by the Town Commission.

(d) *Antennas not located on telecommunications towers.*

(1) Antennas shall be permitted as follows:

a. Stealth rooftop or building-mounted antennas may be permitted as an accessory use in the following zoning districts:

1. RM-50.

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b. Non-stealth rooftop or building-mounted antennas shall only be conditionally permitted as an accessory use in the following zoning districts subject to the procedure and requirements provided elsewhere in this chapter:

1. (B-1) Business.
2. (B-2) Business.
3. (CF) Community facility.

(2) Minimum standards. Building or rooftop antennas shall be subject to the following minimum standards:

a. Building rooftop stealth antennas shall be subject to the following minimum standards:

1. No commercial advertising shall be allowed on an antenna;
2. No signals, lights, or illumination shall be permitted on an antenna, unless required by the Federal Communications Commission or the Federal Aviation Administration;
3. Any related unmanned equipment building shall not contain more than 750 square feet of gross floor area or be more than 12 feet in height; and
4. If the equipment building is located on the roof of the building, the area of the equipment building shall not occupy more than 25 percent of the roof area.
5. Each application shall contain a rendering or photograph of the antenna including, but not limited to, colors and screening devices. This shall be subject to administrative approval for consistency with the definition of stealth facility.

(b) Building rooftop non-stealth antennas shall be subject to the following minimum standards:

1. Antennas shall only be permitted on buildings which are at least 50 feet tall. Antennas may be placed on buildings less than 50 feet tall in the CF district if public safety needs warrant the antenna;
2. Antennas may not extend more than 20 feet above highest point of a roof. Stealth antennas attached to but not above rooftop structures shall be exempt from this provision. Antennas may exceed 20 feet above the roof in the CF district if public safety needs warrant additional height;
3. Antennas, and related equipment buildings, shall be located or screened to minimize the visual impact of the antenna upon adjacent properties and shall be of a material or color which matches the exterior of the building or structure upon which it is situated;
4. No commercial advertising shall be allowed on an antenna;
5. No signals, lights, or illumination shall be permitted on an antenna, unless required by the Federal Communications Commission or the Federal Aviation Administration;
6. Any related unmanned equipment building shall not contain more than 750 square feet of gross floor area or be more than 12 feet in height; and
7. If the equipment building is located on the roof of the building, the area of the equipment building shall not occupy more than 25 percent of the roof area.

(3) Antenna types. To minimize adverse visual impacts, stealth antenna types shall be preferred. If a non-stealth antenna is proposed, the application shall be required to demonstrate, in a technical manner acceptable to the Town staff, why the stealth antenna cannot be used for the particular application.

This does not preclude a combination of the various types of antennas.

(4) Antenna dimensions. Antenna dimensions shall be approved by the Director of Community Services as required by existing technology. A statement shall be submitted, prepared by a professional registered engineer licensed to practice in the State of Florida, to certify the need for the required dimensions.

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(5) Aircraft hazard. Prior to the issuance of a building permit by the building division, department of community development, the applicant shall provide evidence that the telecommunications towers or antennas are in compliance with Federal Aviation Administration (FAA) regulations. Where an antenna will not exceed the highest point of the existing structure upon which it is to be mounted, such evidence shall not be required.

(6) Exceptions. The location of a new antenna in any zoning district other than those districts specified in this section shall be prohibited unless approved as a special exception.

(e) *Shared use of communication antennas.*

(1) Notwithstanding any other provision of this article, to minimize adverse visual impacts associated with the proliferation and clustering of telecommunication towers, co-location of facilities on existing or new towers shall be encouraged by:

- a. Only issuing permits to qualified shared facilities at locations where it appears there may be more demand for towers than the property can reasonably accommodate; or
- b. Giving preference to qualified shared facilities over other facilities in authorizing use at particular locations.

(2) For a facility to become a "qualified shared facility", the facility owner must show that:

- a. The facility is appropriately designed for sharing, and
- b. The facility owner is prepared to offer adequate space on the facility to others on fair and reasonable, nondiscriminatory terms.

(3) To satisfy the requirements of subsection (2)a of this section, the facility owner must submit a written evaluation of the structural capacity of the tower.

(4) The requirements of subsection (2)b of this section will be deemed to have been met if the facility owner shows that it has executed a joint use agreement with at least one other unaffiliated entity for shared use, and agrees to offer a similar contract to others. In other cases, the facility owner must enter into an agreement with the Town, acceptable to the Town, to offer space on fair, reasonable, nondiscriminatory terms, at fair market value, and to negotiate leases promptly and without undue delay. A condition of any permit for a qualified shared facility shall be that the permit shall be terminated, and the facility removed, if the Town finds that the facility owner is not complying with its obligations under this section and associated agreements with the Town.

(5) Co-location of communication antennas by more than one provider on existing or new telecommunication towers shall take precedence over the construction of new single-use telecommunication towers. Accordingly, each application for a telecommunication tower shall include the following:

a. A written evaluation of the feasibility of sharing a telecommunication tower, if an appropriate telecommunication tower or towers is/are available. The evaluation shall analyze one or more of the following factors:

1. Structural capacity of the tower or towers;
2. Radio frequency interference;
3. Geographical service area requirements;
4. Mechanical or electrical incompatibility;
5. Inability or ability to locate equipment on the tower or towers;
6. Availability of towers for co-location;
7. Any restrictions or limitations of the Federal Communications Commission that would preclude the shared use of the tower.

8. Additional information requested by the Town.

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DEVELOPMENT
SERVICES

b. The Town may deny an application if an available co-location is feasible and the application is not for such co-location.

(6) A **telecommunication** tower that is determined to be inappropriate for sharing shall be assumed to be inappropriate for sharing the same types of facilities in the future. Such towers will not need to be evaluated in the future regarding sharing with the same type of facility for which it has been determined to be inappropriate. The Community Services Department shall retain a list of such towers, and will provide a copy of the list to all potential applicants. The Town may require additional sharing feasibility evaluations if warranted by changes in technology.

(7) For any **telecommunications** tower approved for shared use, the owner of the tower shall provide notice of the location of the **telecommunication** tower and the tower's load capacity to all other providers.

(f) *Applications.*

(1) The Town shall act promptly on any application submitted in accordance with the provisions of paragraphs (a) through (f) of this section. The reasons for rejecting any application filed under these provisions shall be explained, set forth in writing and based on substantial evidence. The rejection of an application under this section does not prevent a person from filing an application for a special exception in accordance with applicable law.

(2) The issuance of a permit, however, is not a lease and no municipally owned property may be used without a lease agreement with the Town. The Town may, as appropriate, to protect its property and the public interest, establish additional requirements beyond the minimum requirements of a permit for municipally owned property. This provision further does not preclude the Town from issuing a letter of interest for the purposes of leasing sites on designated Town property for the construction and installation of personal wireless service facilities. For designated neighborhood parks, the Town will encourage the installation of facilities which have a minimal impact on the surrounding areas and are consistent with the development of the park. (Ord. No. 393, § 1, 7-22-97; Ord. No. 2007-14, § 2(Exh. A), 9-25-07)

Sec. 30-326. General regulations for window awnings and entrance canopies.

(a) A permit shall be required for the construction, fabrication, installation, repair or replacement of any awning or canopy erected over public property, or over private property used for business purposes, or over private property when such structure is in whole or in part self-supported. A permit is not required for the repair or replacement of fabric awnings or canopies when the existing structural framework is not altered or removed and when such framework is otherwise in compliance with applicable codes and regulations.

(b) Fabric awnings and canopies located over public property, over areas accessible to the public, over sidewalks or over other areas providing ingress or egress to a site or building shall be constructed so that no rigid part of such fabric awning or canopy shall be less than seven feet six inches from the grade directly below, and no part of the cloth drop or valence shall be less than six feet, eight inches from the grade directly below. Such awning or canopies shall be constructed of flame-resistant materials.

(c) A permit for any awning or canopy extending from private property over any adjoining public property, public right-of-way or public easement may be issued only to a licensed contractor, and shall not be issued until the private property owner has executed a written hold harmless agreement which shall indemnify, defend, save and hold harmless the Town, its elected officials, officers, directors, agents and employees from any and all claims, liability, damages

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DEVELOPMENT
SERVICES

and causes of action which may arise out of such permit or the activities of the permittee and property owner. Prior to the issuance of the permit, the property owner shall obtain and maintain for the entire period that such awning or canopy exists commercial general liability insurance in the amount of \$1,000,000.00 per occurrence for bodily injury or property damage. The Town must be named as an additional insured on the policy, and an endorsement must be issued as part of the policy reflecting this requirement. All policies must be issued by companies authorized to do business in the State of Florida and must be rated no less than A-VI in the latest edition of "Best Key Rating Guide" published by A.M. Best Guide. The policy shall provide that the Town shall receive 45 days prior written notice prior to any cancellation, non-renewal or material change in the coverage provided. The property owner must provide an original certificate of insurance as evidence that the above requirements have been met prior to issuance of the permit. No improvements shall be installed until the Town approves the form of insurance provided as required herein. In the event that the property owner fails to maintain the required insurance or fails to properly maintain the awning or canopy in a safe, clean and attractive condition, the Town may order its immediate removal as a public nuisance and hazard.

(d) Fabric awnings and canopies may not be enclosed with any material other than a valence not more than 18 inches in vertical depth or fabric roller curtains for temporary shade or weather protection.

(e) No awning or canopy shall extend any closer than 18 inches to the curb line, or where no curb is present, no closer than four feet to the edge of pavement of any street or drive aisle. No awning or canopy shall extend any closer than five feet to any light or utility pole, tree trunk or traffic control pole or sign. No awning or canopy may obstruct cross-visibility at an intersection or driveway.

(f) All awnings and canopies on the same lot, building or complex shall utilize the same color fabric. All support columns for canopies shall be painted to match the building or shall be painted white. The colors of awnings and canopies shall be coordinated with the color scheme of the building. The fabric of awnings and canopies may have no more than three colors and shall be limited to solid colors, stripes or other simple designs. No polka dot, checkerboard, floral or other exhibitionist patterns are permitted. No day-glow, phosphorescent, iridescent or other exhibitionist colors shall be permitted. Awnings and canopies may be illuminated with down lighting and may illuminate the areas under the awnings or canopies, however, translucent awnings or canopies shall not be internally illuminated in any way that would cause the awnings or canopies to glow.

(g) All awnings and canopies shall also conform to the requirements for such structures specified in the applicable zoning district regulations of the Town's Code of Ordinances.

(h) Any signage, text, logo or other image on any awning or canopy is subject to separate permit and regulation under the sign regulations of the Town's Code of Ordinances.

(i) In RS-5 and RD-10 Districts the following additional regulations shall apply: Window awnings shall be permitted within the required front, side and rear setbacks, but may extend from the supporting building wall no more than five feet and may extend no closer than five feet to a side or rear property line, nor 20 feet to a front property line.

(j) In RM-25, RM-50 and CF Districts the following additional regulations shall apply:

(1) Window awnings shall be permitted within the required front, side and rear setbacks, but may extend from the supporting building wall no more than five feet and may extend no closer than five feet to a side or rear property line, nor 20 feet to a front property line.

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DEVELOPMENT
SERVICES

(2) Entranceway canopies to shelter an entrance walkway shall be permitted within the required front and side corner setbacks, but shall be limited to parcels with at least 100 feet of lot width, shall be limited to one such canopy per building per street frontage and shall extend no closer than 18 inches to the front or side corner property lines. The support columns for such canopies shall be limited to round, tubular steel pipe of no more than four inches in diameter. Such canopies shall not exceed a width of eight feet or a height of 12 feet.

(k) In B-1 and B-1-A Districts the following additional regulations shall apply:

(1) Window awnings shall be permitted within the required front, side corner and rear setbacks, but shall extend from the supporting building wall no more than nine feet and shall extend no closer than five feet to a rear property line.

(2) Entrance canopies may be permitted within the required front, side corner and rear setbacks and awnings and canopies may be permitted to extend from private property over adjoining public property, public right of way or public easement, but only with the specific approval of the Town Commission as part of site plan approval, and subject to any additional conditions, restrictions or safeguards that the Town Commission may deem appropriate.

(Ord. No. 488, § 3, 2-12-02; Ord. No. 2007-14, § 2(Exh. A), 9-25-07)

Secs. 30-327--30-360. Reserved.

Subdivision M. Reserved*

***Editor's note:** Ord. No. 2008-09, § 2, adopted March 25, 2008, repealed Subdivision M, §§ 30-361--30-368 which pertained to the Town Village Overlay District. See also the Code Comparative Table.

Secs. 30-361--30-380. Reserved.

Subdivision N. Reserved*

***Editor's note:** Ord. No. 2008-06, § 1, adopted March 25, 2008, repealed Subdivision N, §§ 30-381--30-389, which pertained to the Marina Village Zoning Overlay District. See also the Code Comparative Table.

Secs. 30-381--30-400. Reserved.

Subdivision O. Reserved*

***Editor's note:** Ord. No. 2008-08, § 2, adopted March 25, 2008, repealed Subdivision O, §§ 30-401--30-408, which pertained to the Hospitality Village Overlay District. It should also be noted that Ord. No. 2008-07, § 2, adopted March 25, 2008, repealed the Beach Overlay District, which was in turn renamed as the Hospitality Village Overlay District. See also the Code Comparative Table.

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Secs. 30-401--30-440. Reserved.

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DEVELOPMENT
SERVICES

GENERAL NOTES

1. ALL ELEVATIONS SHOWN HAVE BEEN TAKEN FROM AVAILABLE RECORDS FROM CLEAR WIRELESS LLC
2. ALL PROPERTY LINES AND EASEMENTS SHOWN HAVE BEEN TAKEN FROM AVAILABLE RECORDS
3. ALL CONSTRUCTION SHALL CONFORM TO CURRENT LOCAL, STATE AND FEDERAL CODES
4. CONTRACTOR SHALL TAKE APPROPRIATE CARE TO PROTECT EXISTING PROPERTY, STRUCTURES AND EQUIPMENT DURING CONSTRUCTION AND SHALL RESTORE OR REPLACE ANY DAMAGED ITEMS AT CLEAR WIRELESS LLC DIRECTION
5. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION RELATED ACTIVITIES WITH CLEAR WIRELESS LLC CONSTRUCTION MANAGER AS REQUIRED TO NOT DISRUPT EXISTING EQUIPMENT ON SITE
6. ALL MAJOR CONSTRUCTION PROCEDURE DISTURBANCES SHALL BE APPROVED BY CLEAR WIRELESS LLC IN ADVANCE OF PROCEDURES
7. CONTRACTOR SHALL VERIFY ALL EXISTING STRUCTURE SUPPORT PRIOR TO CONSTRUCTION & REPORT ANY CONCERNS OR DISCREPANCIES TO ENGINEER IMMEDIATELY
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY AND PROTECTION OF EXISTING BUILDING STRUCTURES INVOLVED BY THIS SCOPE OF WORK
9. CONTRACTOR SHALL NOT DISRUPT ANY UTILITY SERVICES WITHOUT PROPER PERMISSIONS
10. CONTRACTOR SHALL NOT LEAVE ANY TOOLS, DEBRIS OR SUPPLIES ON SITE DURING OFF-TIMES
11. CONTRACTOR SHALL DISPOSE OF ANY SITE RELATED DEBRIS WHEN COMPLETED WITH SCOPE OF WORK
12. CONTRACTOR SHALL PROVIDE OSHA APPROVED SIGNAGE AS REQUIRED
13. ANY INCIDENTS SHALL BE REPORTED TO CLEAR WIRELESS LLC WITHIN 2 HOURS OF OCCURRENCE
14. CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS OR STRUCTURES CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION
15. CONTRACTOR SHALL VERIFY ALL EXISTING BURIED AND OVERHEAD UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL REPAIR ALL DAMAGED UTILITIES AT HIS OWN COST AND COORDINATE ANY REPAIRS WITH RESPECTIVE UTILITY COMPANY
16. CONTRACTOR SHALL NOT CONTACT LANDLORD, ALL LANDLORD AFFAIRS SHALL BE HANDLED BY SITE ACQUISITION PERSONNEL

GENERAL NOTES

1. OBTAIN PERMITS AND PAY FEES RELATED TO ELECTRICAL WORK PERFORMED ON THIS PROJECT. DELIVER COPIES OF ALL PERMITS TO CLEAR WIRELESS LLC
2. SCHEDULE AND ATTEND INSPECTIONS RELATED TO ELECTRICAL WORK REQUIRED BY JURISDICTION HAVING AUTHORITY. CORRECT AND PAY FOR ANY WORK REQUIRED TO PASS ANY FAILED INSPECTION
3. REDLINED AS-BUILTS ARE TO BE DELIVERED TO CLEAR WIRELESS LLC REPRESENTATIVE
4. PROVIDE TWO COPIES OF OPERATION AND MAINTENANCE MANUALS IN THREE-RING BINDER
5. FURNISH AND INSTALL THE COMPLETE ELECTRICAL SYSTEM, TELCO SYSTEM, AND THE GROUNDING SYSTEM AS SHOWN ON THESE DRAWINGS
6. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES, INSTALLED IN A NEAT MANNER AND SHALL BE SUBJECT TO APPROVAL BY CLEAR WIRELESS LLC REPRESENTATIVES
7. CONDUCT A PRE-CONSTRUCTION SITE VISIT AND VERIFY EXISTING SITE CONDITIONS AFFECTING THIS WORK. REPORT ANY OMISSIONS OR DISCREPANCIES FOR CLARIFICATION PRIOR TO THE START OF CONSTRUCTION
8. PROTECT ADJACENT STRUCTURES AND FINISHES FROM DAMAGE. REPAIR TO ORIGINAL CONDITION ANY DAMAGED AREA
9. REMOVE DEBRIS ON A DAILY BASIS. DEBRIS NOT REMOVED IN A TIMELY FASHION WILL BE REMOVED BY OTHERS AND THE RESPONSIBLE SUBCONTRACTOR SHALL BE CHARGED ACCORDINGLY. REMOVAL OF DEBRIS SHALL BE COORDINATED WITH THE SITE OWNERS REPRESENTATIVE. DEBRIS SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OF LEGALLY. USE OF THE PROPERTY'S DUMPSTER IS PROHIBITED
10. CONTRACTOR TO CONFIRM AVAILABLE CAPACITY AT EXISTING UTILITY PEDESTAL AND ADVISE ENGINEER OF SERVICE SIZE AND FAULT CURRENT LEVEL
11. IF PEDESTAL DOES NOT HAVE ADEQUATE CAPACITY, CONTRACTOR TO SUBMIT COST QUOTATION TO UPGRADE. UPON APPROVAL OF SUBMITTED COST QUOTATION, THE CONTRACTOR SHALL PROVIDE NEW SERVICE AND/OR UPGRADE SERVICE FEEDERS AND EQUIPMENT/ ELECTRODE GROUNDING CONDUCTORS SIZE ACCORDINGLY
12. CONTRACTOR SHALL VERIFY SEPARATION DIMENSION BETWEEN POWER COMPANY ELECTRICAL CONDUITS AND LP GAS PIPES AS PER UTILITY COMPANY, LOCAL CODES, NEC, NFPA, AND GAS TANK MANUFACTURER'S SPECIFICATIONS
13. CONTRACTOR SHALL VERIFY THAT THE TOTAL NUMBER OF SERVICE ENTRANCE DISCONNECTS IN THE EXISTING UTILITY COMPANY PEDESTAL MUST NOT EXCEED SIX. IF THE NEW SERVICE ADDED EXCEEDS THIS VALUE, CONTRACTOR MUST COORDINATE WITH THE UTILITY COMPANY AND AUTHORITY HAVING JURISDICTION THE RUNNING OF AN ADDITIONAL EXCLUSIVE AND DEDICATED SERVICE LATERAL SET FOR THE NEW LOAD ADDED TO THE COMPOUND AS PER NEC ARTICLE 230-2(B)
14. THE EQUIPMENT/ PROTECTIONS MUST BE RATED FOR STANDARD AIC RATE HIGHER THAN INCOMING EQUIPMENT AND/OR UTILITY COMPANY AIC RATE
15. CONTRACTOR SHALL COORDINATE THE UTILITIES WITH CLEAR WIRELESS LLC

W-T

**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

2675 Platinum Avenue
Hoffman Estates, Illinois 60132
PH: (708) 709-4533 FAX: (708) 234-5444
www.wtengineering.com

IL License No.: 184-001108 Exp: 04/30/11

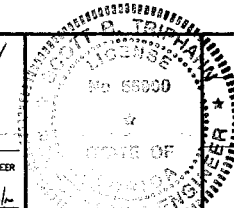
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Clear Wireless LLC

SITE NAME: OCEAN
PLACE CONDO
CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33082

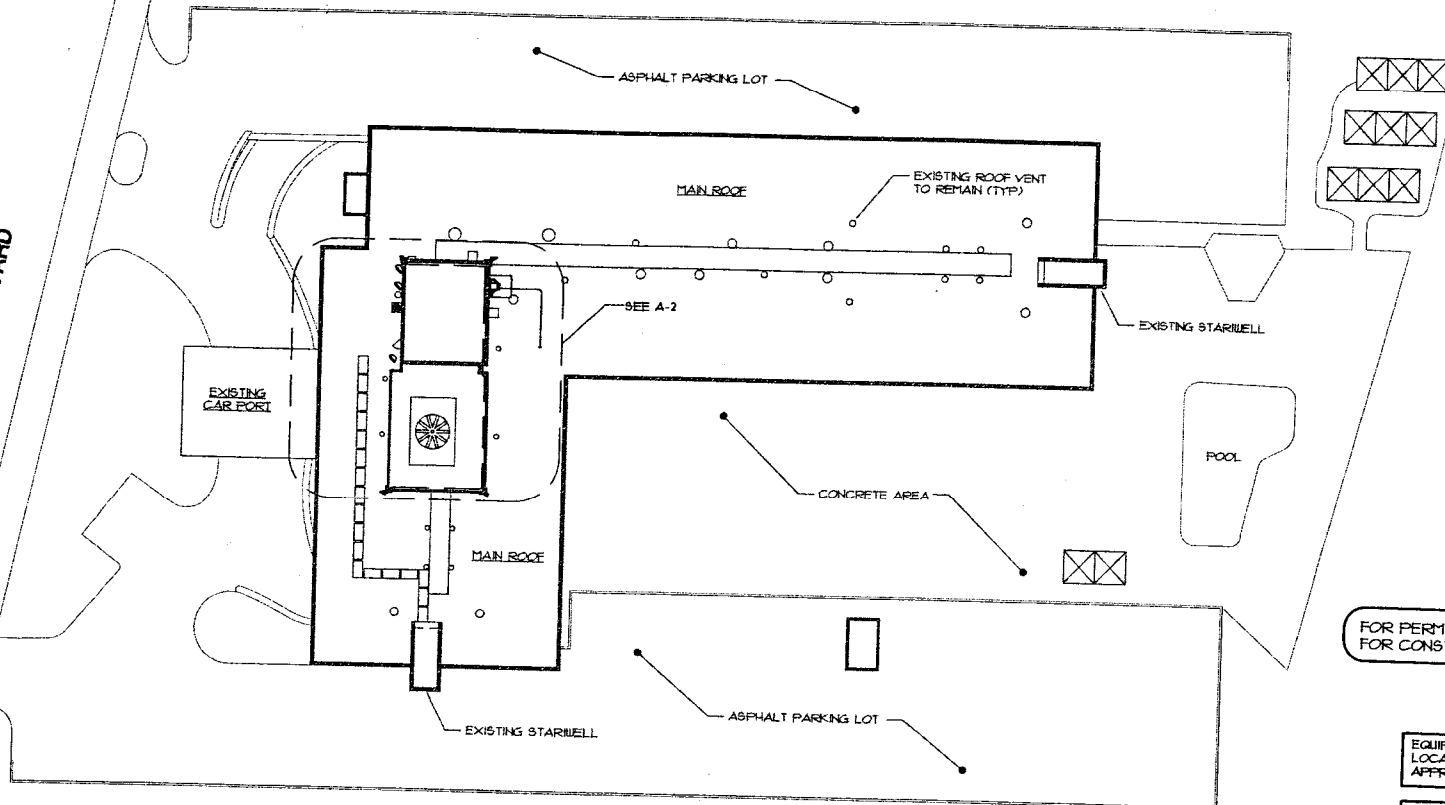
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| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| <p>SCOTT R. BERNHARDT P.E. LICENSED PROFESSIONAL ENGINEER STATE OF FLORIDA LICENSE # 55900 EXPIRES: 02/28/11 SIGNED: <i>[Signature]</i></p> | | | | | |
| SCALE: AS SHOWN | | DESIGNED BY: JR | | DRAWN BY: RSM | |



PROJECT NUMBER
T091372
DRAWING TITLE
GENERAL NOTES

DRAWING NUMBER
N-1

SOUTH OCEAN BOULEVARD



FOR PERMIT ONLY, NOT FOR CONSTRUCTION

OVERALL SITE PLAN
SCALE: 1" = 40'-0"



EQUIPMENT AND ANTENNA LOCATIONS PENDING FINAL APPROVED STRUCTURAL ANALYSIS

ANTENNA MOUNT LOCATIONS AND TYPE SHOULD BE VERIFIED WITH STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION

ANTENNA AZIMUTHS TO BE VERIFIED WITH RF PRIOR TO CONSTRUCTION

NOTE: CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION

WT

W-T COMMUNICATION DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

2675 Prigien Avenue
Hoffman Estates, Illinois 60192
TEL (224) 293-8323 FAX (224) 793-8444
www.wtengineering.com
IL License No. 184-001108 Exp. 04/2011

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Clear Wireless LLC

SITE NAME: OCEAN PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

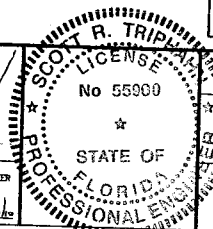
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| 9 | | | | | |

SCALE: AS SHOWN

DESIGNED BY: JR

DRAWN BY: RSM

SCOTT R. TRIPPAH
P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES 02/28/11 SIGNED 02/28/11

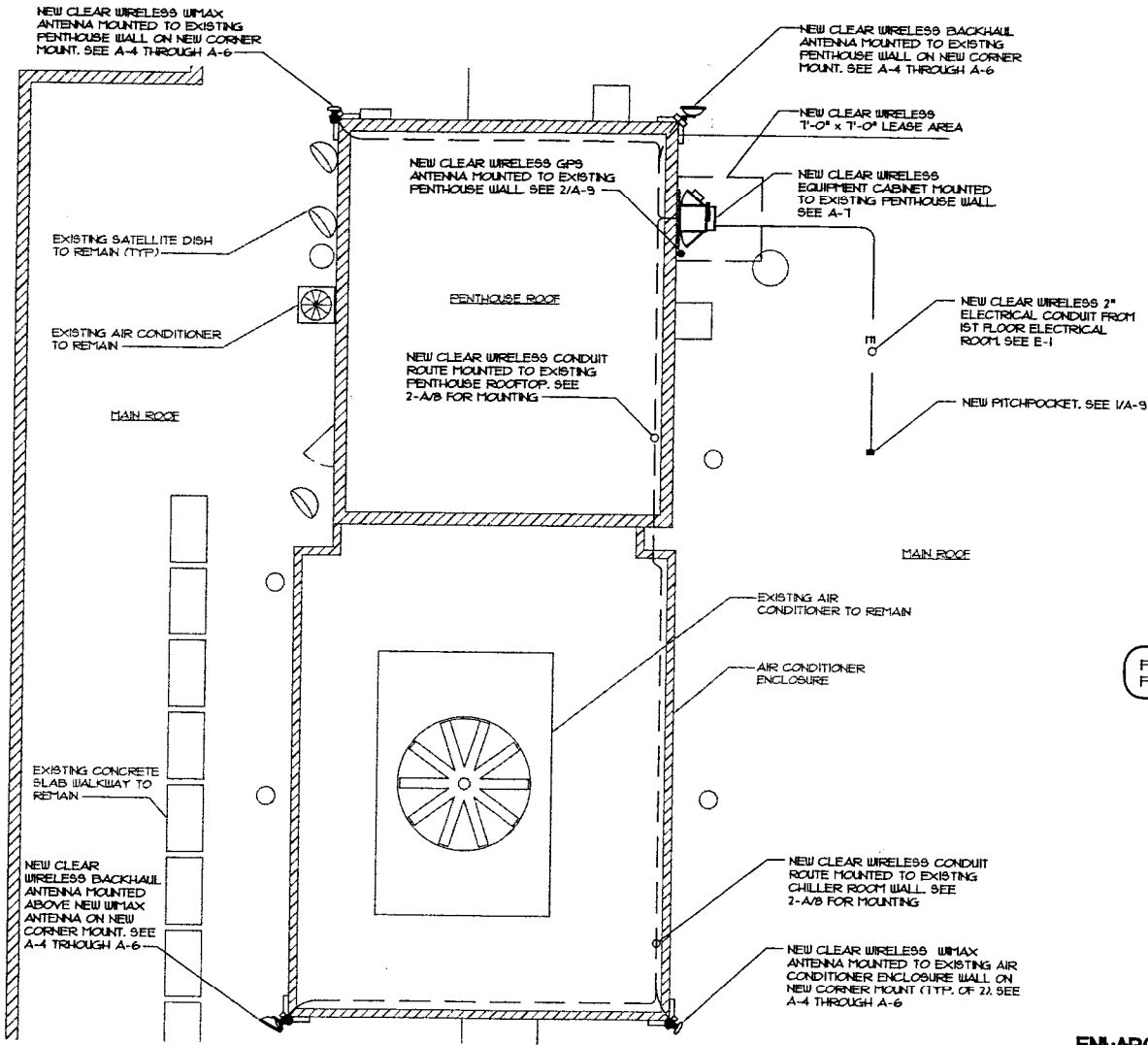


PROJECT NUMBER
T091372

DRAWING TITLE
OVERALL SITE PLAN

DRAWING NUMBER

A-1



EQUIPMENT AND ANTENNA LOCATIONS PENDING FINAL APPROVED STRUCTURAL ANALYSIS

ANTENNA MOUNT LOCATIONS AND TYPE SHOULD BE VERIFIED WITH STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION

ANTENNA AZIMUTHS TO BE VERIFIED WITH RF PRIOR TO CONSTRUCTION

NOTE: CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION

FOR PERMIT ONLY. NOT FOR CONSTRUCTION

ENLARGED ROOF PLAN 1 NORTH

W-T

W-T COMMUNICATION DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

2075 Pratum Avenue
Nashville, TN 37203
PH: (615) 261-6333 FAX: (615) 261-6444
www.wirelessdesigngroup.com

FL License No: 184-001108 Exp: 04/30/11

Clear Wireless LLC

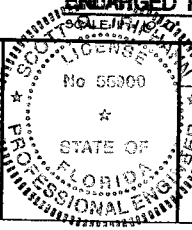
SITE NAME: OCEAN PLACE CONDO

CLEAR WIRELESS SITE ID: FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33080

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| A | 11/19/09 | BOX REVIEW | JJC | LR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSM |

SCOTT R. THOMPSON P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 11/10/10



PROJECT NUMBER
T091372

DRAWING TITLE
ENLARGED ROOF PLAN

DRAWING NUMBER
A-2

TOP OF PENTHOUSE ROOF
ELEV. +170'-0"

NEW CLEAR WIRELESS BACKHAUL ANTENNAS 6
ELEV. +167'-0"

NEW CLEAR WIRELESS UMAX ANTENNAS 6
ELEV. +163'-0"

TOP OF MAIN ROOF
ELEV. +154'-0"

TOP OF MAIN ROOF
ELEV. +150'-0"

NEW CLEAR WIRELESS UMAX
ANTENNA MOUNTED TO EXISTING
PENTHOUSE WALL ON NEW CORNER
MOUNT. SEE A-4 THROUGH A-6

NEW CLEAR WIRELESS BACKHAUL
ANTENNA MOUNTED ABOVE NEW UMAX
ANTENNA ON NEW CORNER MOUNT. SEE
A-4 THROUGH A-6

NEW CLEAR WIRELESS UMAX ANTENNA
MOUNTED TO EXISTING AIR CONDITIONER
ENCLOSURE WALL ON NEW CORNER MOUNT.
SEE A-4 THROUGH A-6

EQUIPMENT AND ANTENNA
LOCATIONS PENDING FINAL
APPROVED STRUCTURAL ANALYSIS

ANTENNA MOUNT LOCATIONS AND
TYPE SHOULD BE VERIFIED WITH
STRUCTURAL ANALYSIS PRIOR TO
CONSTRUCTION

ANTENNA AZIMUTHS TO BE VERIFIED
WITH RF PRIOR TO CONSTRUCTION

NOTE:
CONTRACTOR SHALL RESTORE AND
REPAIR ANY DAMAGED AREAS
CAUSED BY CONSTRUCTION TO
ORIGINAL OR BETTER CONDITION

NOTE:
CONTRACTOR TO PAINT ANTENNA,
CONDUITS, AND ALL MOUNTING
HARDWARE TO MATCH THE EXISTING
EXTERIOR AND TEXTURE OF BUILDING

FOR PERMIT ONLY. NOT
FOR CONSTRUCTION

WEST ELEVATION 1

SCALE: 1" = 25'-0"

WT

W-T COMMUNICATION
DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

2675 Piquette Avenue
Hoffman Estates, Illinois 60132
(714) 220-2500 FAX: (714) 220-5444
www.wtengr.com
FL License No.: 15A-001108 Exp. 04/01/11

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Clear Wireless LLC

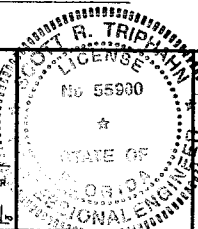
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

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| A | 11/19/09 | BOX REVIEW | JLC | JR | CMS |
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| NO. | DATE | | BY | CHK | APP'D |
| SCALE: AS SHOWN | | | | | |
| DESIGNED BY: JR | | | | | |
| DRAWN BY: RES | | | | | |

SCOTT R. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 01/26/10



PROJECT NUMBER
T091372

DRAWING TITLE
WEST ELEVATION

DRAWING NUMBER
A-3

TOP OF PENTHOUSE ROOF
ELEV. ±170'-0"

NEW CLEAR WIRELESS BACKHAUL ANTENNAS &
ELEV. ±167'-0"

NEW CLEAR WIRELESS UMAX ANTENNAS &
ELEV. ±163'-0"

TOP OF MAIN ROOF
ELEV. ±154'-0"

TOP OF MAIN ROOF
ELEV. ±150'-0"

NEW CLEAR WIRELESS UMAX ANTENNA
MOUNTED TO EXISTING AIR CONDITIONER
ENCLOSURE WALL ON NEW CORNER
MOUNT. SEE A-4 THROUGH A-6

NEW CLEAR WIRELESS BACKHAUL
ANTENNA MOUNTED TO EXISTING
PENTHOUSE WALL ON NEW CORNER
MOUNT. SEE A-4 THROUGH A-6

EQUIPMENT AND ANTENNA
LOCATIONS PENDING FINAL
APPROVED STRUCTURAL ANALYSIS

ANTENNA MOUNT LOCATIONS AND
TYPE SHOULD BE VERIFIED WITH
STRUCTURAL ANALYSIS PRIOR TO
CONSTRUCTION

ANTENNA AZIMUTHS TO BE VERIFIED
WITH RF PRIOR TO CONSTRUCTION

NOTE:
CONTRACTOR SHALL RESTORE AND
REPAIR ANY DAMAGED AREAS
CAUSED BY CONSTRUCTION TO
ORIGINAL OR BETTER CONDITION

NOTE:
CONTRACTOR TO PAINT ANTENNA,
CONDUITS, AND ALL MOUNTING
HARDWARE TO MATCH THE EXISTING
EXTERIOR AND TEXTURE OF BUILDING

FOR PERMIT ONLY. NOT
FOR CONSTRUCTION

GRADE

EAST ELEVATION

SCALE: 1" = 25'-0"

1

WT

W-T COMMUNICATION
DESIGN GROUP, LLC.

WIRELESS INFRASTRUCTURE
2875 Prater Avenue
Hoffman Estates, Illinois 60132
PH: (224) 293-5333 FAX: (224) 293-6444
www.wtdesigngroup.com
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Clear Wireless LLC

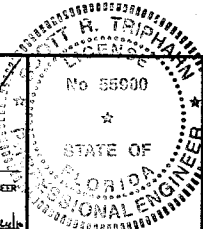
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33062

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| 0 | 01/25/10 | ISSUED FOR PERMIT | RSM | JR | CMS |
| A | 11/19/09 | BOX REVIEW | JJC | JR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSM |

SCOTT A. TRIPHARN, P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 33900
EXPIRES: 02/23/11 SIGNED: [Signature]



PROJECT NUMBER
T091372

DRAWING TITLE
EAST ELEVATION

DRAWING NUMBER
A-3.1

TOP OF PENTHOUSE ROOF
ELEV. = 170'-0"

NEW CLEAR WIRELESS BACKHAUL ANTENNAS
ELEV. = 167'-0"

NEW CLEAR WIRELESS WIMAX ANTENNAS
ELEV. = 163'-0"

TOP OF MAIN ROOF
ELEV. = 154'-0"

TOP OF MAIN ROOF
ELEV. = 150'-0"

NEW CLEAR WIRELESS BACKHAUL
ANTENNA MOUNTED TO EXISTING
PENTHOUSE WALL ON NEW CORNER
MOUNT. SEE A-4 THROUGH A-6

NEW CLEAR WIRELESS WIMAX
ANTENNA MOUNTED TO EXISTING
PENTHOUSE WALL ON NEW CORNER
MOUNT. SEE A-4 THROUGH A-6

FOR PERMIT ONLY. NOT
FOR CONSTRUCTION

EQUIPMENT AND ANTENNA
LOCATIONS PENDING FINAL
APPROVED STRUCTURAL ANALYSIS

ANTENNA MOUNT LOCATIONS AND
TYPE SHOULD BE VERIFIED WITH
STRUCTURAL ANALYSIS PRIOR TO
CONSTRUCTION

ANTENNA AZIMUTHS TO BE VERIFIED
WITH RF PRIOR TO CONSTRUCTION

NOTE:
CONTRACTOR SHALL RESTORE AND
REPAIR ANY DAMAGED AREAS
CAUSED BY CONSTRUCTION TO
ORIGINAL OR BETTER CONDITION

NOTE:
CONTRACTOR TO PAINT ANTENNA,
CONDUITS, AND ALL MOUNTING
HARDWARE TO MATCH THE EXISTING
EXTERIOR AND TEXTURE OF BUILDING

NORTH ELEVATION 1

SCALE: 1" = 75'-0"

WT

W-T COMMUNICATION
DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

2675 Pyramid Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtdesigngroup.com

IL License No. 184-001108 Exp. 04/2011

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Clear Wireless LLC

SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33082

| | | | | | |
|-----|----------|-------------------|-----|-----|-------|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSM | JR | CMS |
| A | 11/19/09 | 90% REVIEW | JJC | JR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| | | | | | |

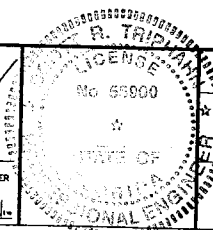
SCALE: AS SHOWN

DESIGNED BY: JR

DRAWN BY: RSM

SCOTT K. TRIPPAH P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900

EXPRES: 02/28/11 SIGNED: [Signature]



PROJECT NUMBER
T091372

DRAWING TITLE
NORTH ELEVATION

DRAWING NUMBER
A-3.2

TOP OF PENTHOUSE ROOF
ELEV. = 110'-0"

NEW CLEAR WIRELESS BACKHAUL ANTENNAS &
ELEV. = 161'-0"

NEW CLEAR WIRELESS WIMAX ANTENNAS &
ELEV. = 163'-0"

TOP OF MAIN ROOF
ELEV. = 154'-0"

TOP OF MAIN ROOF
ELEV. = 150'-0"

NEW CLEAR WIRELESS BACKHAUL
ANTENNA MOUNTED ABOVE NEW
WIMAX ANTENNA ON NEW CORNER
MOUNT. SEE A-4 THROUGH A-6

NEW CLEAR WIRELESS WIMAX
ANTENNA MOUNTED TO EXISTING
AIR CONDITIONER ENCLOSURE
WALL ON NEW CORNER MOUNT.
SEE A-4 THROUGH A-6

EQUIPMENT AND ANTENNA
LOCATIONS PENDING FINAL
APPROVED STRUCTURAL ANALYSIS

ANTENNA MOUNT LOCATIONS AND
TYPE SHOULD BE VERIFIED WITH
STRUCTURAL ANALYSIS PRIOR TO
CONSTRUCTION

ANTENNA AZIMUTHS TO BE VERIFIED
WITH RF PRIOR TO CONSTRUCTION

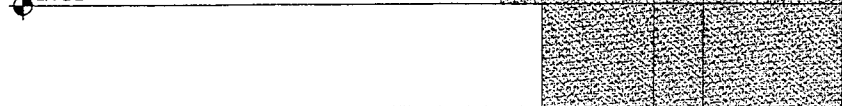
NOTE:
CONTRACTOR SHALL RESTORE AND
REPAIR ANY DAMAGED AREAS
CAUSED BY CONSTRUCTION TO
ORIGINAL OR BETTER CONDITION

NOTE:
CONTRACTOR TO PAINT ANTENNA,
CONDUITS, AND ALL MOUNTING
HARDWARE TO MATCH THE EXISTING
EXTERIOR AND TEXTURE OF BUILDING

FOR PERMIT ONLY. NOT
FOR CONSTRUCTION



GRADE



SOUTH ELEVATION

SCALE: 1" = 25'-0"

1

WT

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DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

2675 Pratum Avenue
Halland Estates, Florida 33010
PH (204) 283-6223 FAX (204) 283-6444
www.wtengrading.com

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Clear Wireless LLC

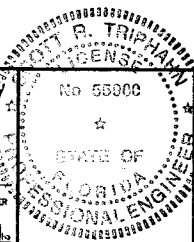
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

| | | | | | |
|--------|----------|-------------------|-----|-----------|-------|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSW | JR | CMS |
| A | 11/19/09 | 90% REVIEW | JAC | JR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSW |

SCOTT E. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES 02/28/11 SIGNED: [Signature]



PROJECT NUMBER

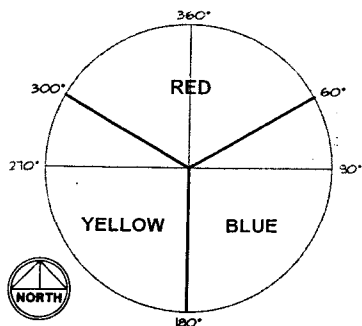
T091372

DRAWING TITLE

SOUTH ELEVATION

DRAWING NUMBER

A-3.3



CONTRACTOR TO VERIFY ACTUAL COAX CABLE REQUIREMENTS WITH CLEAR WIRELESS LLC PRIOR TO CONSTRUCTION.

ANTENNA & DISH LABELING

CONTRACTOR SHALL USE SECTOR APPROPRIATE COLORED TAPE TO DENOTE THE ANTENNA AND MICROWAVE DISHES. TAPE SHOULD BE WRAPPED AROUND THE TOP AND BOTTOM OF THE SUPPORT PIPE AS DEPICTED ABOVE.

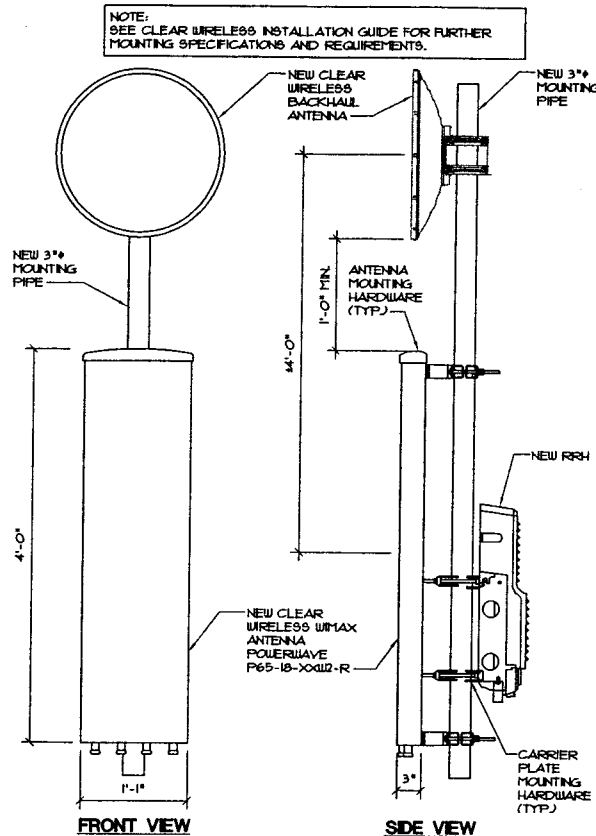
COAX CABLE LABELING

1. REFER TO LATEST REVISION OF CLEARWIRE CONSTRUCTION INSTALLATION GUIDE FOR LABEL MARKINGS
2. ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY THE CONTRACTOR.
3. THE DESIGN IS BASED ON THE EMBS REPORT, SIGNED AND APPROVED BY RF ENGINEERING.
4. THE CONTRACTOR SHALL VERIFY THE ACTUAL LENGTHS OF CABLES BEFORE INSTALLATION.
5. ALL TIE WRAPS SHALL BE CUT FLUSH WITH THE APPROVED CUTTING TOOL FOR SAFETY AND PROTECTION.
6. ALL SITE CABLING SHALL MAINTAIN MAXIMUM CABLE SEPARATION REQUIREMENTS AS TO THE TYPE OF CABLE AND FUNCTION. THIS IS DONE TO PROTECT DAMAGE, AS WELL AS TO PREVENT THE INDUCTION OF CURRENT INTO THE CONDUCTORS FROM MAGNETIC LINES OF FLUX CREATED FROM POWER AND CURRENTS THROUGH THE CABLES.
7. CABLES SHALL BE PROTECTED FROM DAMAGE AND SHALL HAVE THE MINIMUM BEND RADIUS FOR THE SIZE AND MANUFACTURER OF THAT CABLE. IN THIS CASE THE MINIMUM RADIUS IS 4 INCHES.
8. SLACK SHALL BE LEFT IN THE CABLES LEAVING THE EQUIPMENT TO THEIR TERMINATION POINTS.
9. ALL CABLES SHALL BE ROUTED AND INSTALLED IN A MANNER AS TO PROTECT THE CABLES FROM DAMAGE OF SHARP EDGES OF HARDWARE AND WHERE CABLES ARE ROUTED DOWN THE TOWER.
10. CABLES SHALL BE SUPPORTED A MINIMUM OF EVERY THREE (3) FEET EXCEPT FOR INSIDE MONOPOLES AND LATTICE TOWERS WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED.
11. DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM THE BUILDING OR OUTDOOR CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE CABLE PORT.

ANTENNA & COAX ORIENTATION - (3) SECTOR LABELING

INSTALLATION NOTES

1. SECTOR ORIENTATION/AZIMUTH AND HEIGHT WILL VARY FROM REGION TO REGION AND IS SITE SPECIFIC. REFER TO THE EMBS REPORT FOR EACH SITE TO DETERMINE THE ANTENNA AND MICROWAVE LOCATION AND FUNCTION OF EACH SECTOR.
2. ALL TOWER MOUNTS INSTALLED MUST BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTALLATION GUIDELINES.
3. REFER TO THE MANUFACTURER'S ASSEMBLY DOCUMENTATION FOR TORQUE SPECIFICATIONS.
4. ALL BOLTS TO BE TIGHTENED TO A "SNUG-TIGHT" CONDITION. "SNUG-TIGHT" CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PILES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS FROM AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY "SPUD" WRENCH.
5. LOCATE DISH ANTENNA SO THAT THE DISH CENTERLINE IS NO MORE THAN 2'-0" FROM THE CENTERLINE OF THE MOUNT.

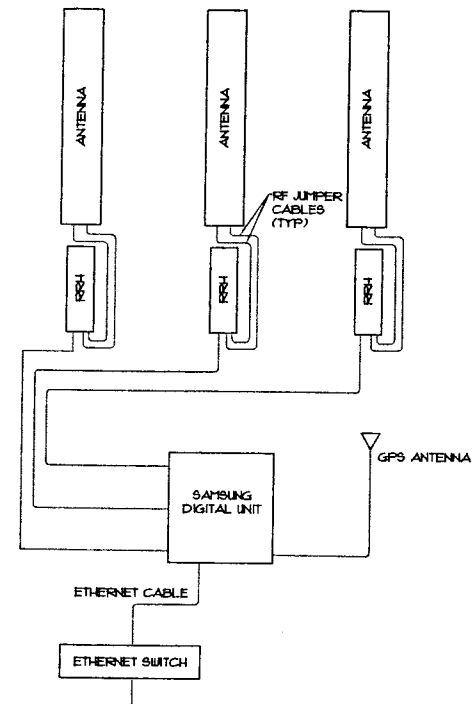


FRONT VIEW

SIDE VIEW

ANTENNA DETAIL

SCALE: NONE



NOTE: INSTALL 50 Ohm TERMINATORS ON ALL UN-USED ANTENNA PORTS AND TORQUE ACCORDINGLY

ANTENNA RH DETAIL

SCALE: NONE

W-T

W-T COMMUNICATION
DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

2875 Preston Avenue
Houston, Texas, Texas 77012
PH: (281) 283-6333 FAX: (281) 283-6444
www.wtdesigngroup.com

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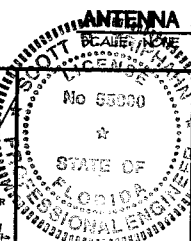
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33062

| | | | | | |
|--------|----------|-------------------|-----|-----------|--------|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSM | JR | QMS |
| A | 11/19/09 | 90% REVIEW | JUC | JR | QMS |
| NO. | DATE | REVISIONS | BY | CHK | APPROD |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSM |

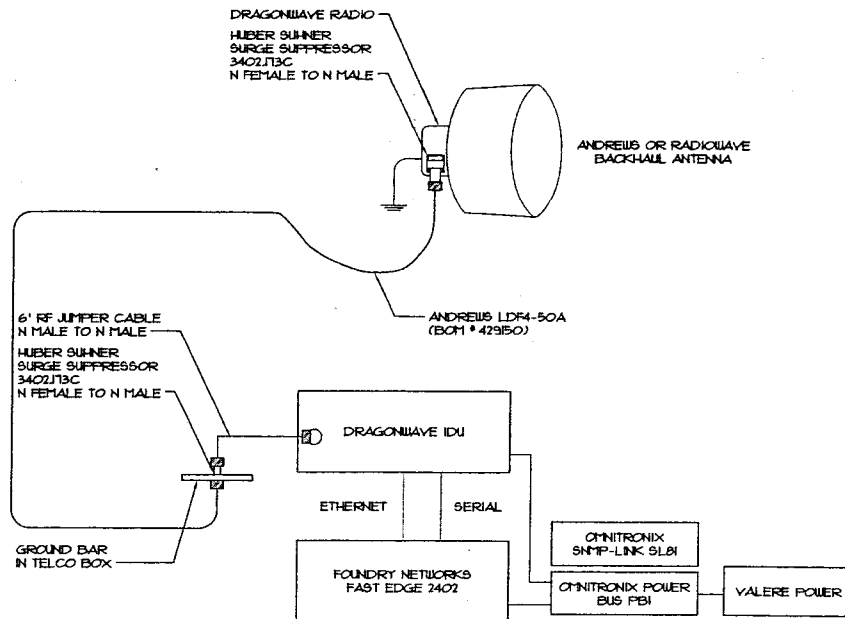
SCOTT R. TISHMAN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 01/26/11



PROJECT NUMBER
T091372

DRAWING TITLE
ANTENNA & COAX ORIENTATION/
LABELING, DETAILS & NOTES

DRAWING NUMBER
A-5



| EQUIPMENT | DISTANCE | MANUFACTURER | PART NUMBER | BOM NUMBER |
|---------------------|--------------|--------------|-------------------------------|------------|
| REDLINE | UP TO 300' | BELDEN | BELDEN T918A CAT5 | 433605 |
| REDLINE | UP TO 200' | ANDREW | FSJ4-50B 1/4 SUPERFLEX 50 OHM | 430174 |
| REDLINE | 20' TO 300' | ANDREW | LDF4-50A 1/2 HELIAX 75 OHM | 429150 |
| DRAGONWAVE | 0' TO 250' | COMMSCOPE | SFX-500 | 413138 |
| DRAGONWAVE | 251' TO 350' | COMMSCOPE | FXL-540 | 452440 |
| DRAGONWAVE | 351' TO 100' | COMMSCOPE | FXL-780 | 382525 |
| DRAGONWAVE | OVER 100' | COMMSCOPE | CONTACT ENGINEERING | - |
| MOTOROLA (ORTHOGON) | UP TO 300' | BELDEN | BELDEN T918A CAT5 | 433605 |

BACKHAUL ANTENNA INSTALLATION DETAIL

SCALE: NONE

1

WT

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DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

2675 Priddy Avenue
Hoffman Estates, Illinois 60132
PH: (224) 704-0333 FAX: (224) 703-5444
www.wtengineering.com

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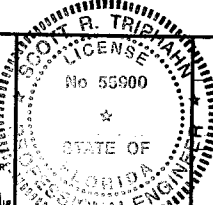
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33082

| | | | | | |
|--------|----------|-------------------|-----|-----------|------|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSM | JR | CMS |
| A | 11/19/09 | BOX REVIEW | JJC | OR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APPT |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSM |

SCOTT R. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: [Signature]



PROJECT NUMBER

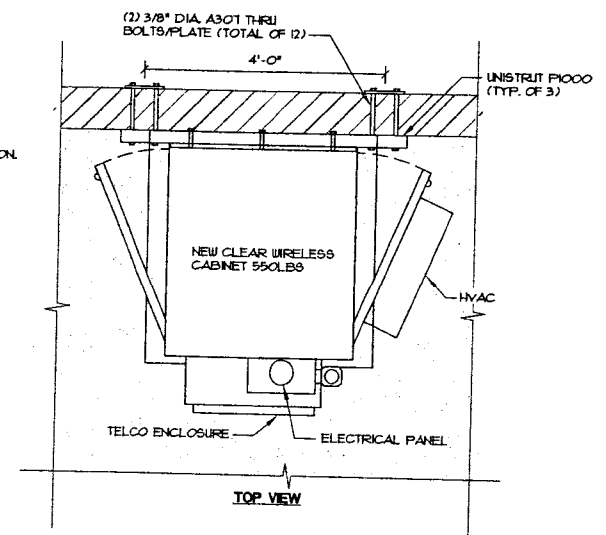
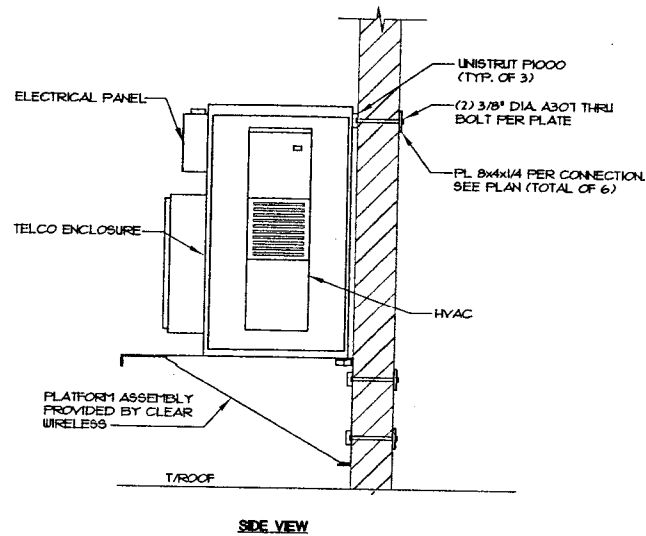
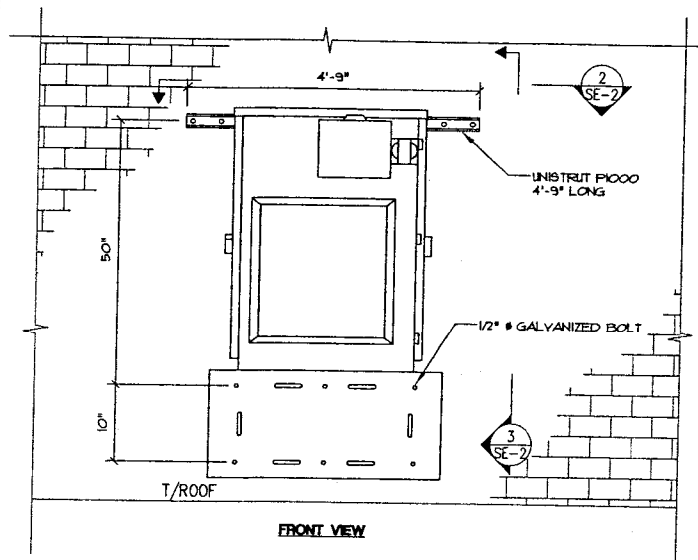
T091372

DRAWING TITLE

BACKHAUL ANTENNA
INSTALLATION DETAIL

DRAWING NUMBER

A-6



FOR PERMIT ONLY. NOT
FOR CONSTRUCTION

WALL MOUNTED EQUIPMENT CABINET DETAILS SCALE: NONE

1

WT

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DESIGN GROUP, LLC.

WIRELESS INFRASTRUCTURE
2075 Prichard Avenue
Hoffman Estates, Illinois 60152
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtdesigngroup.com

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Clear Wireless LLC

SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33082

0 01/25/10
A 11/19/09

NO. DATE

SCALE: AS SHOWN

ISSUED FOR PERMIT
90% REVIEW

DESIGNED BY: JR

REVISIONS

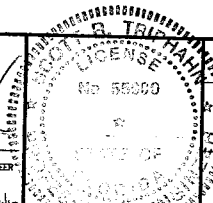
RSW JR CMS
JWC JR CMS

BY CHK APP'D

DESIGNED BY: JR

DRAWN BY: RSW

SCOTT R. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 01/25/10

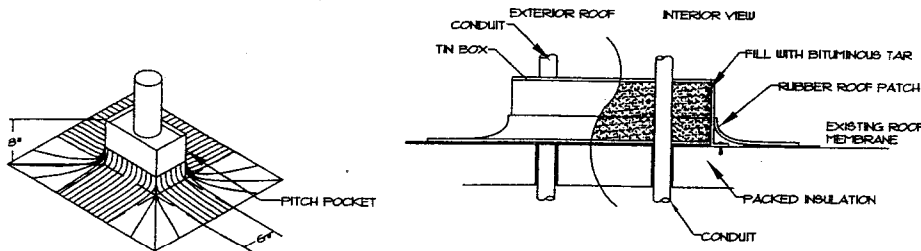


PROJECT NUMBER
T091372

DRAWING TITLE
EQUIPMENT CABINET DETAILS

DRAWING NUMBER

A-7

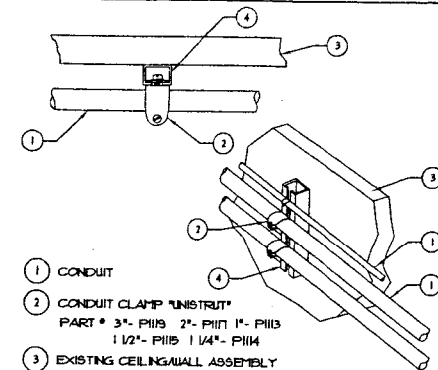


1. CONTRACTOR SHALL VERIFY ROOF ASSEMBLY WITH PROPERTY OWNER AND SHALL CONFORM ROOF TYPE (A- SINGLE MEMBRANE) (B BUILT UP ROOF)
2. CORE / CUT NEW OPENING IN ROOF 15 x dia. OF PIPE. X-RAY ALL POST TENSION ROOPS/SLABS AND DO NOT CUT ANY STEEL.
3. SEE SITE PLAN FOR ELECTRIC, TELCO, AND GROUNDING CONDUIT SIZES.
4. USE UL* 66YT HILTI 2 HOUR FS-ONE FIRESTOP MATERIAL. CLEAN CONTACT SURFACE AND INSTALL HILTI FIRE-STOP MATERIAL.
5. MINIMUM 4" THICK MINERAL WOOL (MIN. 4 PCF DENSITY) (NOTE: IF MAX. PIPE SIZE IS 4" NOM. DIA. A MIN. 3" THICKNESS OF MINERAL WOOL MAY BE USED)

ROOF PENETRATION DETAIL

SCALE: NONE

1



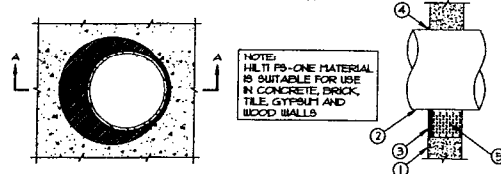
USE STANDARD STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTION OF CHANNELS. SPACE UNITS = 6'-0" ON CENTER.

CONDUIT SUPPORT WALL MOUNT

SCALE: NONE

2

UL SYSTEM NO. C-AJ-1498
METAL PIPE THROUGH CONCRETE FLOOR, WALL, OR BLOCK WALL
TOP VIEW SECTION A-A
F RATING = 2-HR.
T RATING = 0-HR.



1. CONCRETE FLOOR OR WALL ASSEMBLY:
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
 - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 4-1/2" THICK).
 - C. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. THROUGH PENETRANTS TO INCLUDE ANY OF THE FOLLOWING:
 - A. MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE.
 - B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
 - C. MAXIMUM 4" NOMINAL DIAMETER EMT.
 - D. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
3. MIN. 1/2" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT 2-HR FIRESTOP SEALANT.
4. MIN. 1/2" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT 2-HR FIRESTOP SEALANT.
5. MINIMUM 4" THICK MINERAL WOOL (MIN. 4 PCF DENSITY) (SEE NOTE NO. 4).

NOTES:
1. X-RAY FLOOR SLAB PRIOR TO CORE DRILLING. NO CUTTING/DAMAGING OF EXISTING REBAR IS ALLOWED.
2. MAXIMUM DIAMETER OF OPENING = 8".
3. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
4. WALLS REQUIRE 1/2" DEPTH OF SEALANT FLUSH WITH BOTH SIDES.
5. IF MAXIMUM PIPE SIZE IS 4" NOM. DIA. A MINIMUM 3" THICKNESS OF MINERAL WOOL MAY BE USED.

SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

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FLOOR / WALL PENETRATION

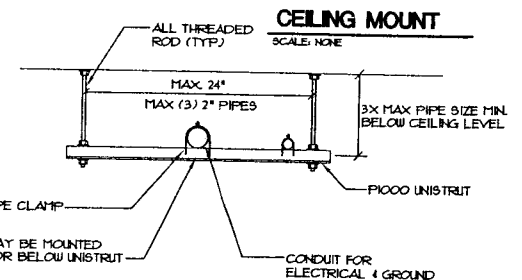
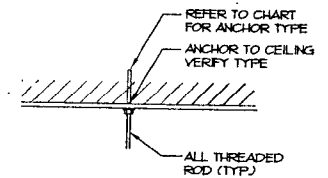
SCALE: NONE

3

| WALL CONSTRUCTION | USE |
|-------------------------|--|
| HOLLOW | 1/4" DIA. TOGGLE BOLT |
| HOLLOW AT STUD | 1/4" DIA. LAG SCREW |
| CONCRETE BLOCK (HOLLOW) | 1/4" DIA. HILTI HY-20 WITH SCREEN, MINIMUM EMBEDMENT 2-1/2" |
| CONCRETE (SOLID) | 1/4" DIA. HILTI HY-150 WITH SCREEN, MINIMUM EMBEDMENT 2-1/2" |

NOTE:
SPACE EACH KIT
6'-0" O.C. LENGTH OF RUN

| PIPE/CONDUIT CLAMP ALL PART # ARE 'UNISTRUT' | |
|--|--------|
| O.D. OF PIPE | PART # |
| 1" | P2030 |
| 1 1/2" | P2034 |
| 2" | P2038 |
| 2 1/2" | P2043 |
| 3" | P2046 |
| 4" | P1120 |



UTILITY CONDUIT TRAPEZE MOUNT

SCALE: NONE

4

W-T

W-T COMMUNICATION
DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

2673 Prichard Avenue
Hoffman Estates, Illinois 60132
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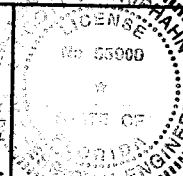
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

| | | | | | |
|-----------------|----------|-------------------|---------------|-----|-----|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSW | JR | CM |
| A | 11/19/09 | 90% REVIEW | JUC | JR | CM |
| NO. | DATE | REVISIONS | BY | CHK | APP |
| SCALE: AS SHOWN | | DESIGNED BY: JR | DRAWN BY: RSW | | |

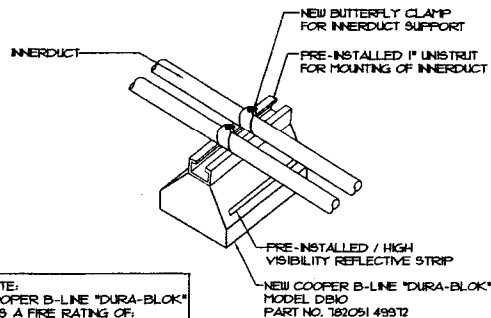
SCOTT R. TRIPPAHN, P.E.
LICENSED PROFESSIONAL ENGINEER,
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 01/25/10



PROJECT NUMBER
T091372
DRAWING TITLE
CONDUIT DETAILS & NOTES

DRAWING NUMBER

A-8



NOTE: INSTALL NUMBER OF INNERDUCTS AS SHOWN ON DRAWINGS.

ROOFTOP COAX MOUNT

SCALE: NONE

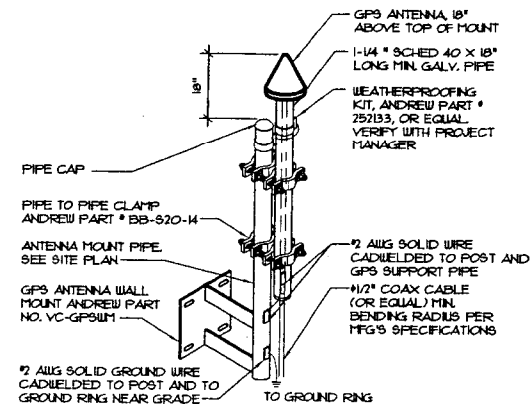
1

NOTE: CONTRACTOR SHALL PROVIDE AND INSTALL ALL GPS COMPONENTS.

THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1 1/4" DIA. SCH40 GALVANIZED OR STAINLESS STEEL PIPE. THE PIPE MUST BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MIN. OF 18") USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH PERPENDICULAR CUT. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNAS MOUNT.

INSTALL GPS ANTENNA AS SPECIFIED ON SITE PLAN. IF INSTALLING ON ICE/CABLE BRIDGE ENSURE THAT GPS IS A MINIMUM OF 10' ABOVE GRADE, ON THE FURTHEST POST FROM THE TOWER TO ATTAIN MAXIMUM COVERAGE.

CONTRACTOR SHALL ENSURE THE GPS ANTENNA HAS THE REQUIRED FULL EXPOSURE TO THE SOUTHERN HEMISPHERE/HORIZON

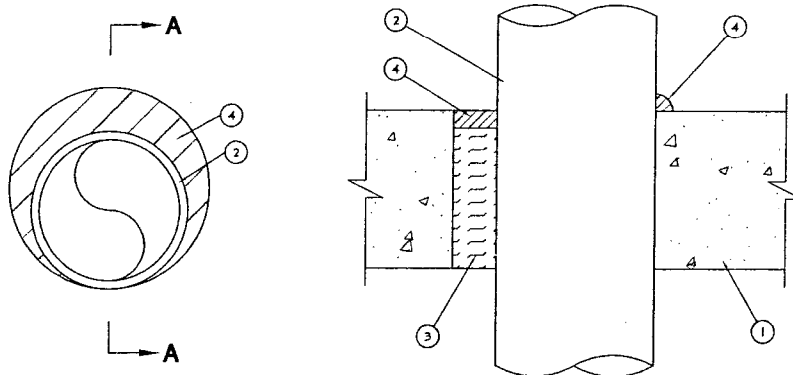


GPS ANTENNA DETAIL

SCALE: NONE

2

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SECTION A-A

OUTER WALL PENETRATION

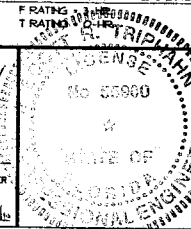
SCALE: NONE

3

- FLOOR OR WALL ASSEMBLY -- MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 8 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- THROUGH PENETRANTS -- ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED WITHIN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1-3/8 IN. IN THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
 - STEEL PIPE -- NOM 6 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE -- NOM 6 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - CONDUIT -- NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT.
- PACKING MATERIAL -- MIN 4 IN. THICKNESS OF MIN 4.0 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
- FILL VOID OR CAVITY MATERIAL -- SEALANT -- MIN 1/4 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR AND WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL. IF RATING APPLIES ONLY WHEN CP6015 OR CP604 SEALANT IS USED. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP6015, CP604, CP606 OR PS-ONE SEALANT.

*BEARING THE UL CLASSIFICATION MARK

UL SYSTEM NO. C-AJ-150
CONDUIT THROUGH BEARING WALL SIMILAR TO UL DESIGN NO. U907



PROJECT NUMBER
7091372

DRAWING TITLE
CONDUIT DETAILS & NOTES

DRAWING NUMBER

A-9

W-T

W-T COMMUNICATION
DESIGN GROUP, LLC.

2575 Pratum Avenue
Maitland, FL 32751
PH (407) 255-6233 FAX (407) 255-6444
www.wtengineering.com

IL License No. 184-001108 Exp. 04/30/11

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Clear Wireless LLC

SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BE BY THE SEA, FLORIDA 33062

| NO. | DATE | REVISIONS | BY | CHK | APPD |
|-----|----------|-------------------|-----|-----|------|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSW | JR | CMS |
| 1 | 11/19/09 | BOX REVIEW | JAC | JR | CMS |
| 2 | | REVISIONS | | | |
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SCALE: AS SHOWN

DESIGNED BY: JR

DRAWN BY: RSW

EXPIRES: 02/28/11 SIGNED: 01/26/11

DISTANCE BETWEEN SWITCH GEAR AND METER

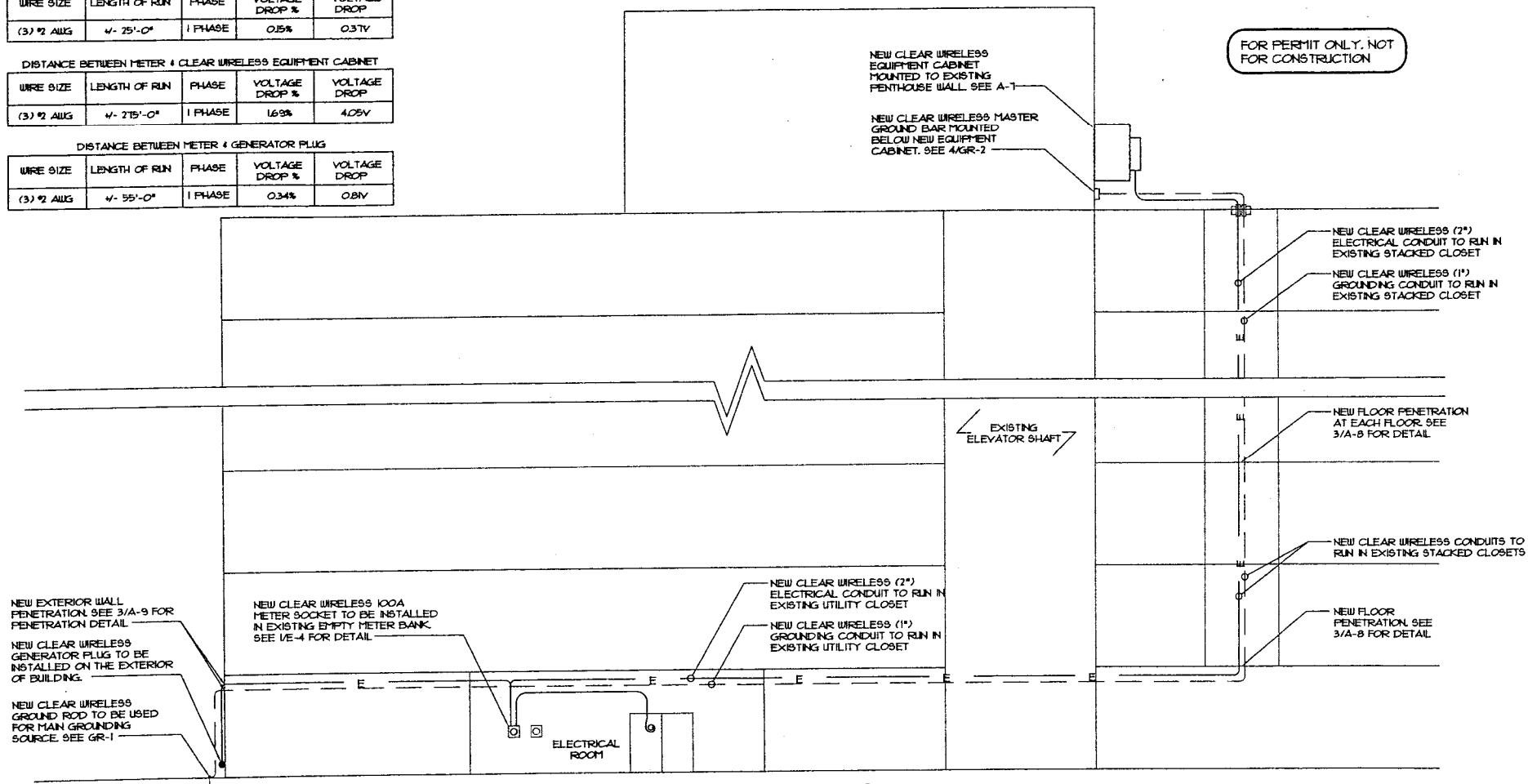
| WIRE SIZE | LENGTH OF RUN | PHASE | VOLTAGE DROP % | VOLTAGE DROP |
|------------|---------------|---------|----------------|--------------|
| (3) #2 ALG | W- 25'-0" | 1 PHASE | 0.5% | 0.37V |

DISTANCE BETWEEN METER & CLEAR WIRELESS EQUIPMENT CABINET

| WIRE SIZE | LENGTH OF RUN | PHASE | VOLTAGE DROP % | VOLTAGE DROP |
|-------------|---------------|---------|----------------|--------------|
| (3) #2 ALUG | 4'-275'-0" | 1 PHASE | 1.63% | 4.05V |

DISTANCE BETWEEN METER & GENERATOR PLUG

| WIRE SIZE | LENGTH OF RUN | PHASE | VOLTAGE DROP % | VOLTAGE DROP |
|-------------|---------------|---------|----------------|--------------|
| (3) #2 ALUG | 4-55'-0" | 1 PHASE | 0.34% | 0.81V |



SCALE : 1" = 10'-0"

**WT**

**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

2675 Pratum Avenue
Hoffman Estates, Illinois 60192.
PH: (224) 293-6333 FAX: (224) 293-6444
www.wfangineering.com
IL License No.: 184-001108 Exp. 04/30/11

Clear Wireless LLC*

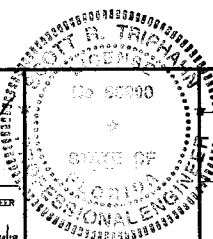
**SITE NAME: OCEAN
PLACE CONDO**

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33062

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| 0 | 01/25/10 | ISSUED FOR PERMIT | RSM | JR | CL |
| A | 11/19/09 | BOX REVIEW | JJC | JR | CL |
| NO. | DATE | REVISIONS | ENE | CHK | APP |

SCOTT R. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES 02/28/11 SIGNED: 11/22/10



PROJECT NUMBER
T091372

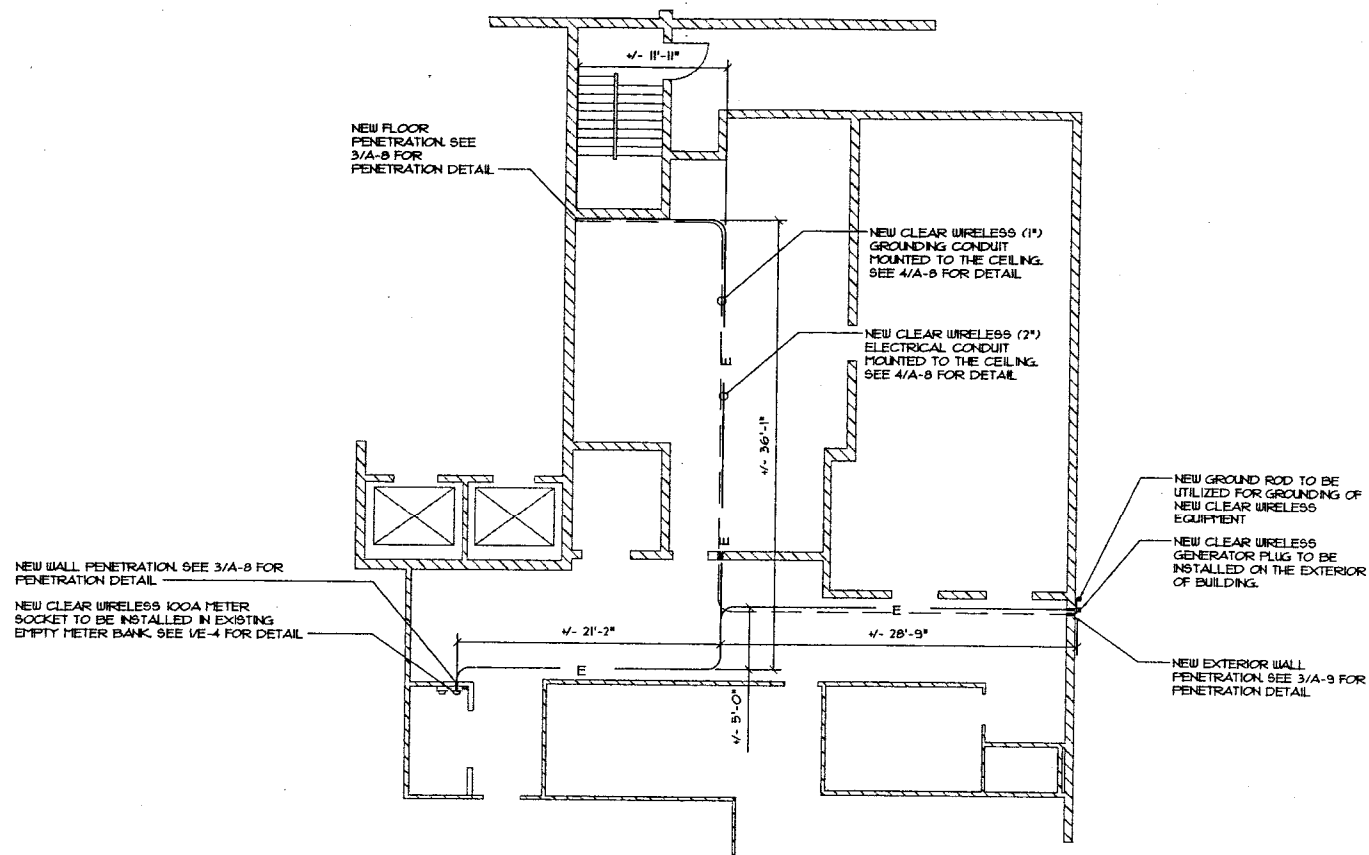
UTILITY PLAN & NOTES

DRAWING NUMBER

E-1

ELECTRICAL UTILITY ROUTES TO BE
VERIFIED IN FIELD WITH CLEAR WIRELESS
UTILITY COORDINATOR AND LOCAL UTILITY
COMPANY

FOR PERMIT ONLY, NOT
FOR CONSTRUCTION



LOBBY UTILITY PLAN

SCALE : 1" = 10'-0"

1



WT

**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

2575 Pratum Avenue
Nashville, Tennessee 37202
PH: (224) 293-6333 FAX: (224) 293-6444
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Clear Wireless LLC

SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

0 01/25/10
A 11/19/09

NO. DATE

SCALE: AS SHOWN

ISSUED FOR PERMIT
90% REVIEW

REVISIONS

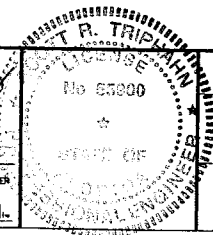
DESIGNED BY: JR

RSM JR CMS
JUC JR CMS
BY CHK APP'D

DRAWN BY: RSM

EXPRES: 02/28/11 SIGNED: [Signature]

SCOTT R. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 35900



PROJECT NUMBER

T091372

DRAWING TITLE

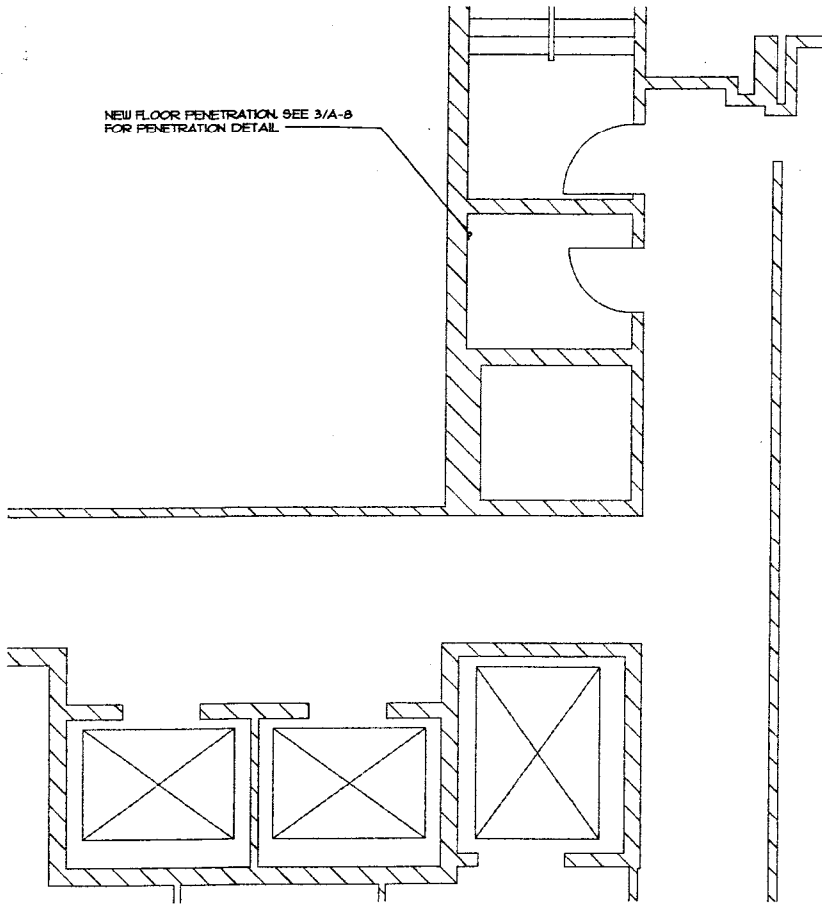
UTILITY PLAN & NOTES

DRAWING NUMBER

E-2

ELECTRICAL UTILITY ROUTES TO BE
VERIFIED IN FIELD WITH CLEAR WIRELESS
UTILITY COORDINATOR AND LOCAL UTILITY
COMPANY

NEW FLOOR PENETRATION SEE 3/A-8
FOR PENETRATION DETAIL



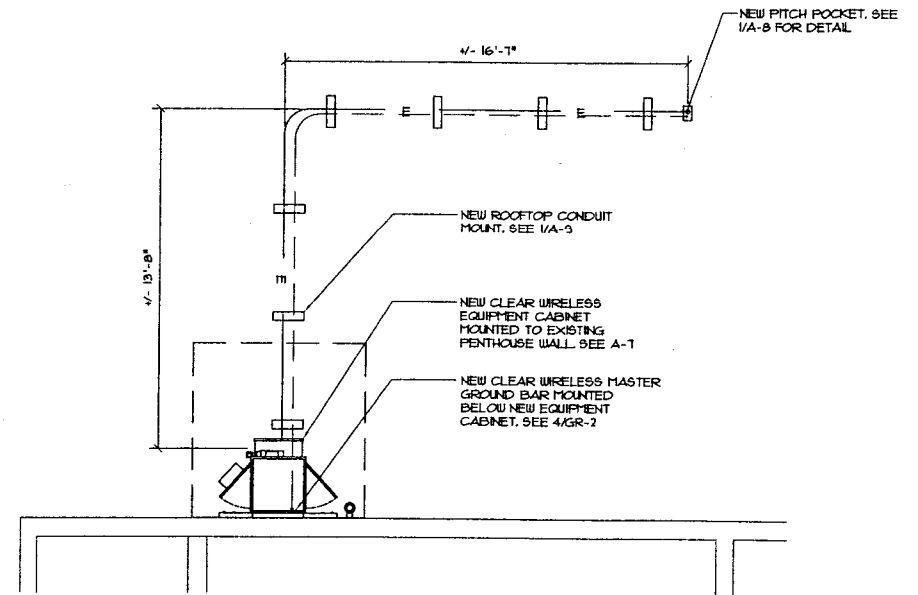
TYP. FLOOR UTILITY PLAN
SCALE: 1" = 5'-0"

1



ELECTRICAL UTILITY ROUTES TO BE
VERIFIED IN FIELD WITH CLEAR WIRELESS
UTILITY COORDINATOR AND LOCAL UTILITY
COMPANY

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ROOF UTILITY PLAN
SCALE: 1" = 5'-0"

2



WT

**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

2575 Platinum Avenue
Haltom City, TX 76117
PH: (214) 293-4333 FAX: (214) 293-4444
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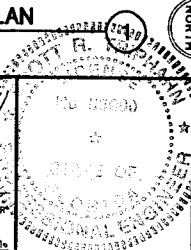
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1800 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

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| A | 11/15/09 | BOX REVIEW | JAC | JR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | PSM |

SCOTT R. TISHAWAN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 35900
EXPIRES: 02/28/11 SIGNED: 01/24/10



PROJECT NUMBER

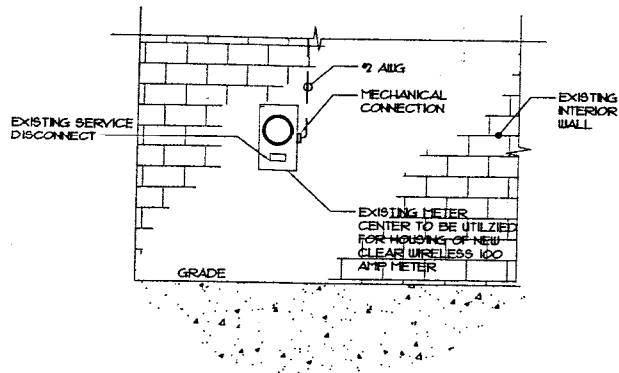
T091372

DRAWING TITLE

UTILITY PLAN & NOTES

DRAWING NUMBER

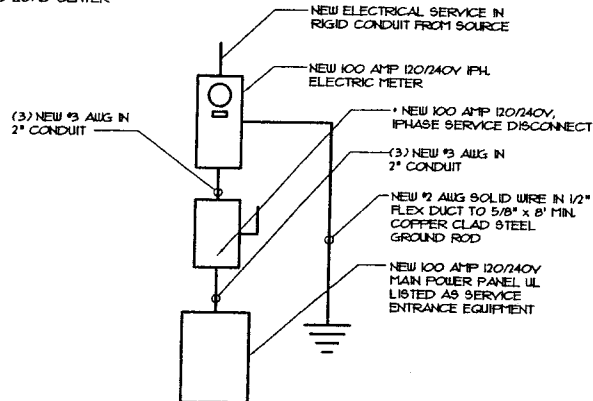
E-3



METER MOUNT DETAIL 1
SCALE: NONE

NOT USED 2
SCALE: NONE

NOTE: FIELD VERIFY EXACT LOCATION OF UTILITY SERVICE. MAX. 3/4" AWG CONDUCTOR LENGTH OF 275' FROM EXISTING UTILITY SERVICE TO LOAD CENTER



* NOTE: MAIN DISCONNECT CAN BE LOCATED IN METER FITTING IF METER IS UL LISTED, AND UTILITY COMPANY APPROVED

ONE-LINE DIAGRAM (POWER) 3
SCALE: NONE

NOT USED
SCALE: NONE

WT

**W-T COMMUNICATION
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WIRELESS INFRASTRUCTURE

2575 Prichard Avenue
Hartford, CT 06105
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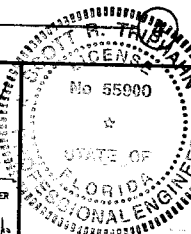
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1000 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33062

| | | | | | |
|--------|----------|-------------------|-----|-----------|-------|
| 0 | 01/25/10 | ISSUED FOR PERMIT | RSM | JR | CMS |
| A | 11/19/09 | BOX REVIEW | JLC | JR | CMS |
| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSM |

[Signature]
SCOTT R. TRIPPAHN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 01/25/10



PROJECT NUMBER
T091372

DRAWING TITLE

UTILITY DETAILS & DIAGRAMS

DRAWING NUMBER

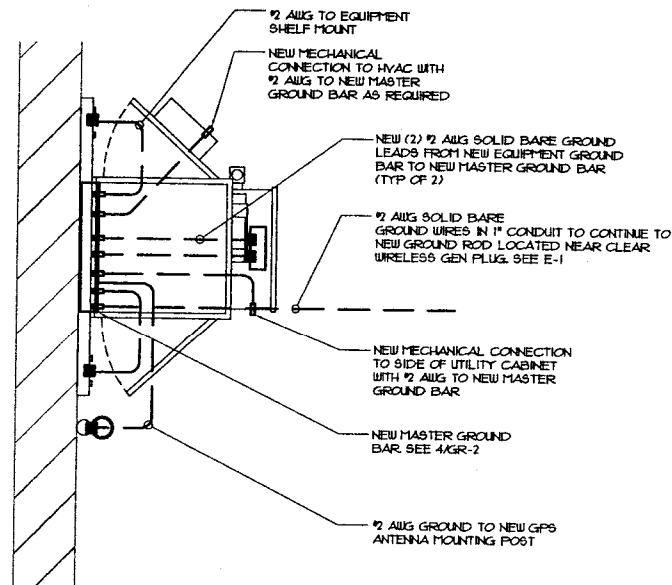
E-4

GROUNDING NOTES

- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
- GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID COPPER UNLESS NOTED OTHERWISE.
- GROUNDING CONNECTIONS SHALL BE EXOTHERMIC (CADWELD) UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS 4 BETTS KOPR-SHIELD (TM OF JET LUB INC.) PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
- WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 1/2" PVC SLEEVE, FROM 1'-0" ABOVE GRADE AND SEAL TOP WITH SILICONE MATERIAL.
- PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
- GROUNDING WIRE CONNECTIONS SHALL BE 3-CRIMP C-TAP COMPRESSION TYPE. SPLIT BOLTS ARE NOT ACCEPTABLE.
- GROUND RODS SHALL BE COPPER CLAD STEEL 5/8" X 8' SPACED NO LESS THAN 8' O.C.
- CONNECTORS SHALL BE CRIMPED USING HYDRAULIC CRIMPING TOOLS. SURFACE CONNECTIONS SHALL BE MADE TO BARE METAL. PAINTED SURFACES SHALL BE FILED TO ENSURE PROPER CONTACT. APPLY NON-OXIDIZING AGENT TO CONNECTIONS.
- COPPER BUSES SHALL BE CLEANED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED. GROUNDING CONDUCTORS SHALL BE RUN THROUGH PVC SLEEVE WHERE ROUTED THROUGH WALLS, FLOORS, AND CEILING. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
- HARDWARE (I.E. NUTS, BOLTS, WASHERS, ETC.) IS TO BE STAINLESS STEEL. EXOTHERMIC WELDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDING USING LOCKNUTS, AND BONDING NUTS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTORS. RECEPTACLES AND EQUIPMENT BRANCH CIRCUITS SHALL BE GROUNDING WITH A FULL SIZED EQUIPMENT GROUNDING CONDUCTOR RUN IN THE CIRCUIT'S CONDUIT.
- INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUS IN THE PANEL BOARD.
- GROUND BARS (SECTOR, COLLECTOR, AND MASTER) SHALL BE BARE 1/4"x4" COPPER, LARGE ENOUGH TO ACCOMMODATE THE REQUIRED NUMBER OF GROUND CONNECTIONS. THE HARDWARE SECURING THE MGB SHALL ELECTRICALLY INSULATE THE MGB FROM ANY STRUCTURE TO WHICH IT IS FASTENED.
- APPLY TAB KOPR-SHIELD OR APPROVED EQUAL PRIOR TO MAKING MECHANICAL CONNECTIONS. CONNECTIONS SHALL BE MADE WITH STAINLESS STEEL BOLTS, NUTS AND LOCK WASHERS 3/8" DIAMETER MIN. WHERE GALVANIZING IS REMOVED FROM METAL IT SHALL BE PAINTED OR TOUCHED UP WITH 'GALVONOX' OR EQUAL.
- ALL TERMINATIONS AT EQUIPMENT ENCLOSURES, PANELS, FRAMES OR EQUIPMENT AND WHERE EXPOSED FOR GROUNDING CONDUCTOR TERMINATION SHALL BE PERFORMED, UTILIZING TWO HOLE BOLTED TONGUE COMPRESSION TYPE LUG WITH A DRAGON TOOTH WASHER.
- ALL CLAMPS AND SUPPORTS USED TO SUPPORT THE GROUNDING SYSTEM CONDUCTORS AND PVC CONDUITS SHALL BE PVC TYPE (NON-CONDUCTIVE). DO NOT USE METAL BRACKETS OR SUPPORTS WHICH WOULD FORM A COMPLETE RING AROUND ANY GROUNDING CONDUCTOR.
- ALL BOLTS, WASHERS AND NUTS USED ON GROUNDING CONNECTIONS SHALL BE STAINLESS STEEL.
- THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT RESISTANCE TO EARTH DOES NOT EXCEED 5.0 OHMS. PROVIDE A COPY OF TESTING REPORT, INCLUDING THE METHOD AND INSTRUMENTS USED TO VERIFY RESISTANCE TO CLEAR WIRELESS LLC REPRESENTATIVE.
- BOND CABINET THROUGH THE MAIN GROUND BAR PER MANUFACTURE SPECIFICATIONS.

NOTE:
FOR ANTENNA GROUNDING
DETAILS SEE SHEET GR-3.

FOR PERMIT ONLY, NOT
FOR CONSTRUCTION



GROUNDING PLAN
SCALE: 1/2" = 1'-0"

1



W-T

**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE
2675 Prichard Avenue
Hollywood, Florida 33022
PH: (224) 254-6331 FAX: (224) 263-6444
www.wtengrading.com

IL License No. 186-001106 Exp. 04/01/2011

Clear Wireless LLC

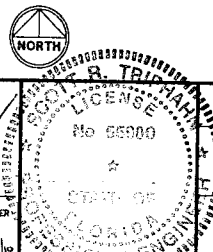
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33082

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| NO. | DATE | REVISIONS | BY | CHK | APP'D |
| SCALE: | AS SHOWN | DESIGNED BY: | JR | DRAWN BY: | RSM |

SCOTT R. JEFFREY P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900
EXPIRES: 02/28/11 SIGNED: 11/19/09



PROJECT NUMBER
T091372
DRAWING TITLE
GROUNDING PLAN
& NOTES

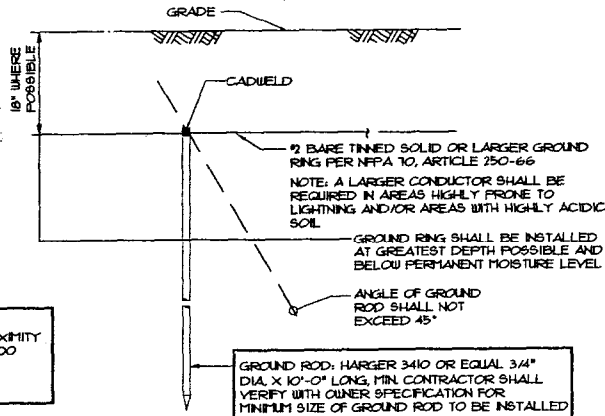
DRAWING NUMBER
GR-1

NOTE:
GROUND RODS MAY BE:
- COPPER CLAD STEEL
- SOLID COPPER

NOTE:
GROUND RODS SHALL
HAVE A MAXIMUM
SPACING TWICE THE
LENGTH OF ROD

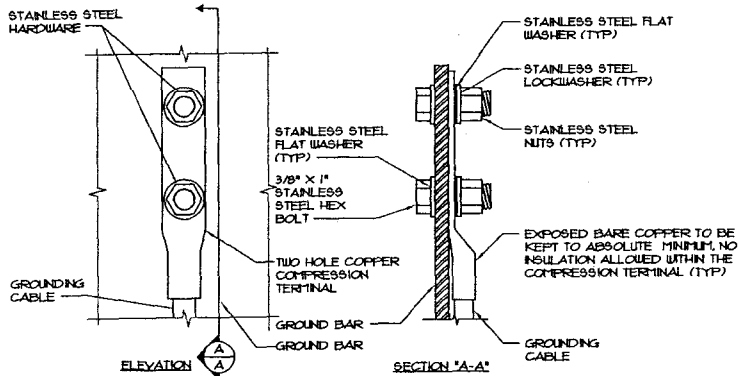
NOTE:
SEE RESISTIVITY REPORT
FOR VERIFICATION AS
AVAILABLE

NOTE:
GROUND RODS INSTALLED WITHIN CLOSE PROXIMITY
TO TOWER OR WHEN SOIL IS AT OR BELOW 2,000
OHM-CM, SHALL BE GALVANIZED TO PREVENT
GALVANIC CORROSION OF TOWER, (SEE
ANSI/TIA-EIA-222-F)



GROUND ROD
SCALE: NONE

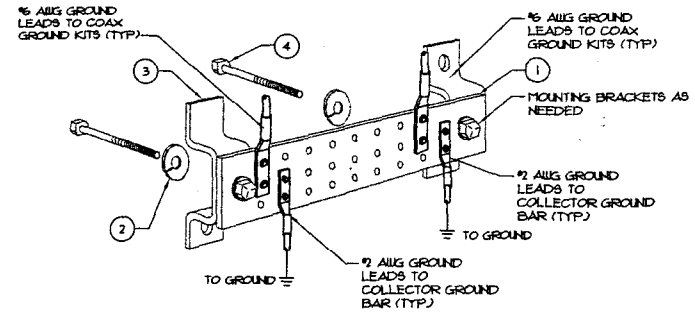
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1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS
3. NO CRIMPING OF SOLID 1/2 USE CADWELD ONLY

GROUND BAR CONNECTION
SCALE: NONE

3



KEY NOTES

1. 1/4" THK ELECTRICAL TINNED GROUND BAR HARGER OR APPROVED EQUAL HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2. 3/8" STAINLESS STEEL LOCKWASHERS
3. WALL MOUNTING BRACKET AS NEEDED
4. 3/8" X 1" STAINLESS STEEL ENLF BOLTS

COLLECTOR & SECTOR GROUND BAR DETAIL

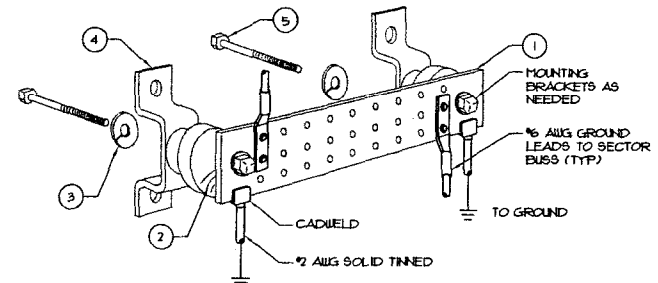
SCALE: NONE

2

NOTE:
CONTRACTOR TO APPLY
"KOPR-SHIELD" TO ALL
CONNECTIONS

NOTE:
HARDWARE SHALL BE STAINLESS
STEEL

NOTE:
GROUND BAR SHOWN IS FOR
REFERENCE ONLY. SEE GR-3 FOR
ADDITIONAL GROUND DETAILS



KEY NOTES

1. 1/4" THK ELECTRICAL TINNED GROUND BAR HARGER OR APPROVED EQUAL HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2. INSULATORS ON TOWER BASE MGB ONLY
3. 3/8" STAINLESS STEEL LOCKWASHERS
4. WALL MOUNTING BRACKET AS NEEDED
5. 3/8" X 1" STAINLESS STEEL ENLF BOLTS
6. CONTRACTOR SHALL GROUP INCOMING WIRES

MASTER GROUND BAR DETAIL
SCALE: NONE

NOTE:
CONTRACTOR TO APPLY
"KOPR-SHIELD" TO ALL
CONNECTIONS

NOTE:
HARDWARE SHALL BE STAINLESS
STEEL

NOTE:
GROUND BAR SHOWN IS FOR
REFERENCE ONLY. SEE GR-2 FOR
ACTUAL GROUND BAR SPECS

WT

**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

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IL License No: 184-001108 Exp: 04/2011

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Clear Wireless LLC

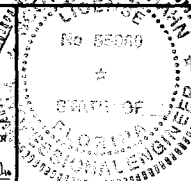
SITE NAME: OCEAN
PLACE CONDO

CLEAR WIRELESS SITE ID:
FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BY THE SEA, FLORIDA 33062

| NO. | DATE | REVISIONS | BY | CHK | APP'D |
|-----|----------|-------------------|-----|-----|-------|
| 0 | 01/23/10 | ISSUED FOR PERMIT | RSW | JJC | CMS |
| A | 11/19/09 | ROS REVIEW | JJC | JJC | CMS |
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SCOTT R. BRIDGEMAN P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55060
EXPIRES: 02/28/11 SIGNED: 1/2/11



PROJECT NUMBER

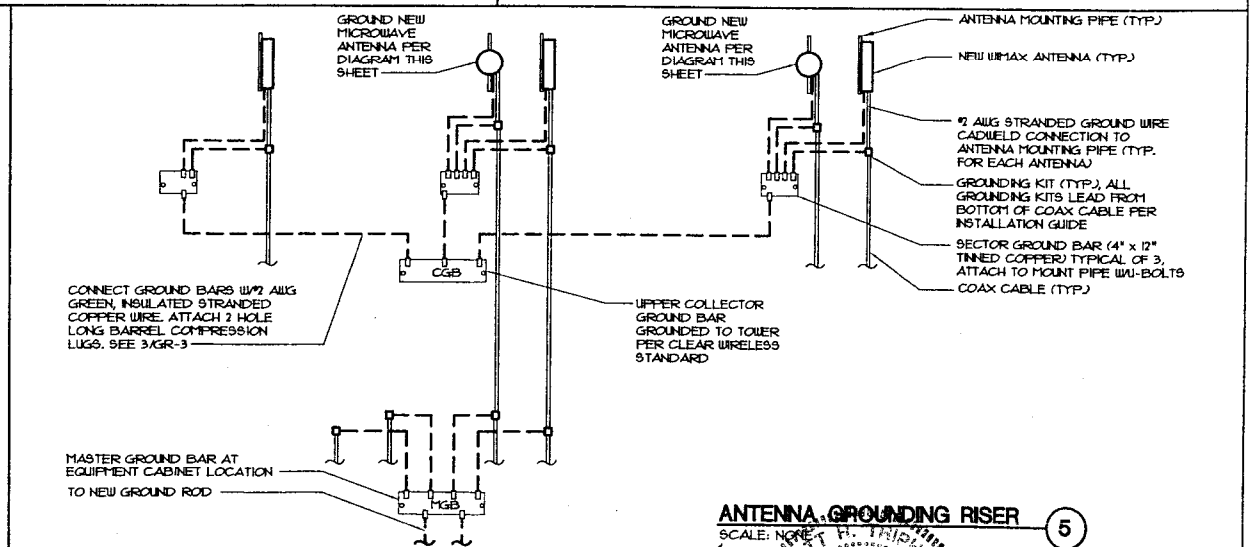
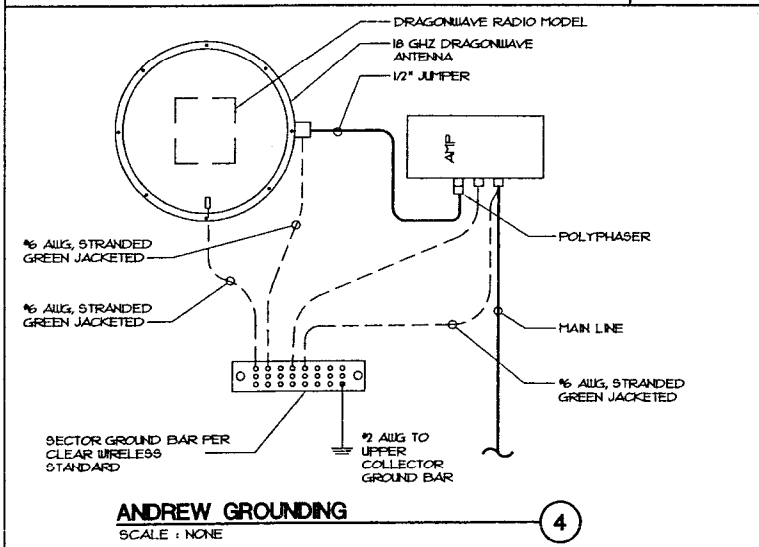
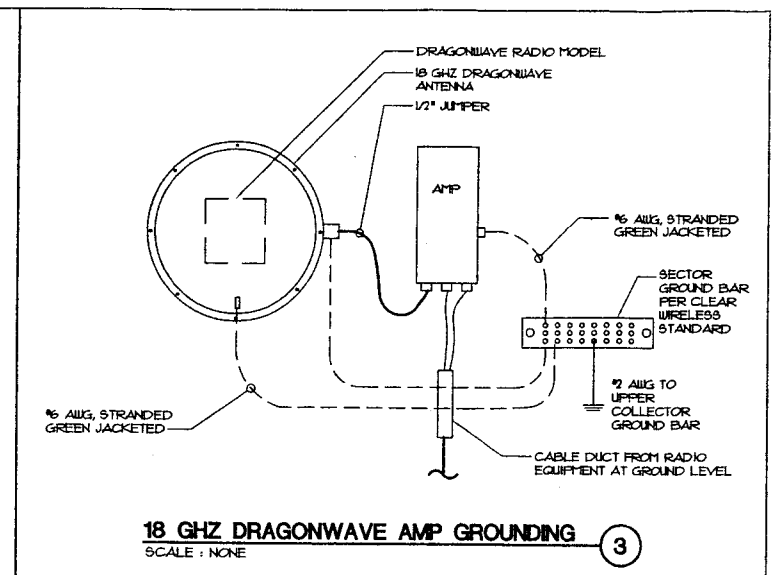
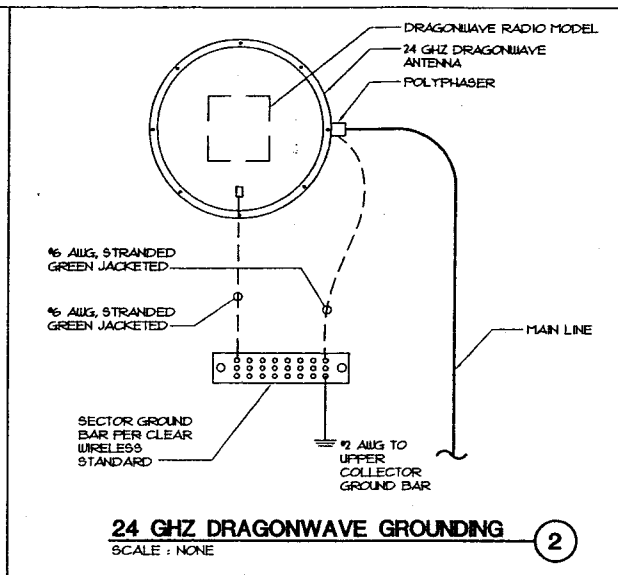
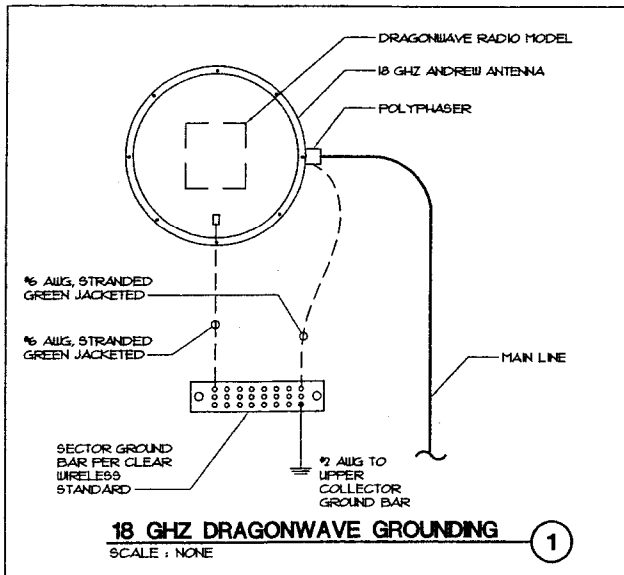
T091372

DRAWING TITLE

GROUNDING DETAILS

DRAWING NUMBER

GR-2



W-T

W-T COMMUNICATION DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

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IL License No. 194-001108 Exp. 04/30/11

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Clear Wireless LLC

SITE NAME: OCEAN PLACE CONDO

CLEAR WIRELESS SITE ID: FL-MIA5045-A

1900 SOUTH OCEAN BOULEVARD
LAUDERDALE BEACH, FLORIDA 33082

| | | | | |
|-----------------|-------------------|---------------|-----------------|---------------------|
| 01/25/10 | ISSUED FOR PERMIT | RSM | JR | CMS |
| 11/19/09 | 90% REVIEW | AJC | JR | CMS |
| NO. DATE | REVISIONS | BY | CHK | APPD |
| SCALE: AS SHOWN | DESIGNED BY: JR | DRAWN BY: RSM | EXPRES-02/28/11 | SIGNED: [Signature] |

ANTENNA GROUNDING RISER
SCALE: NONE

STATE OF FLORIDA
SCOTT E. TRIPPAHN, P.E.
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE # 55900

PROJECT NUMBER
T091372

DRAWING TITLE
ANTENNA GROUNDING DETAILS

DRAWING NUMBER
GR-3